**TOSHIBA**

# SERVICE MANUAL

# COLOUR TELEVISION

C7SS Chassis

# 2896DD

## – SUMMARY –

2896DD is the same as 2876DD except for the parts tabled on back of this sheet.
Use this service manual together with the original service manual 2876DD, 2876DF
(File No. 030-9704).

PRINTED IN JAPAN, Oct., 1999 (So)

# REPLACEMENT PARTS LIST DIFFERENCES

| Location No. | Part No. | Description |
|---|---|---|
| A411 | 23550788 | Label, Model No. |
| CQ20 | 24567104 | PF, 0.1μF |
| CQ23 | 24567104 | PF, 0.1μF |
| CQ24 | 24567104 | PF, 0.1μF |
| CQ26 | 24567104 | PF, 0.1μF |
| CQ27 | 24567104 | PF, 0.1μF |
| CQ33 | 24567104 | PF, 0.1μF |
| CQ34 | 24567104 | PF, 0.1μF |
| CQ60 | 24797229 | EL, 2.2μF, ±20%, 50V |
| CZ20 | 24590103 | PF, 0.01μF |
| DQ01 | 23115599 | Diode, 1N4148 |
| Q4423 | 23114577 | Transistor, 2SC22350(FA-1) |
| QA01 | 23000177 | IC, TMP87CS38N-1C14 |
| QQ05 | 23314794 | Transistor, 2PC1815Y |
| QQ06 | 23114461 | Transistor, RN1203 |
| QQ07 | 23314794 | Transistor, 2PC1815Y |
| QQ08 | 23314794 | Transistor, 2PC1815Y |
| R630 | 24366512 | CF, 5100 ohm |
| R631 | 24366512 | CF, 5100 ohm |
| RQ60 | 24366101 | CF, 100 ohm |
| RQ61 | 24366103 | CF, 10k ohm |
| RQ62 | 24366103 | CF, 10k ohm |
| RQ63 | 24366103 | CF, 10k ohm |
| RQ64 | 24366104 | CF, 100k ohm |
| U902A | 23783976 | Signal Board, PB7208D-1 |
| U902B | 23783977 | A-PRO Board, PB7208D-2 |
| U906A | 23783978 | SECAM Board, PB7213A-1 |
| U906B | 23783979 | Comb Board, PB7213A-2 |
| U906C | 23783980 | YUV SW Board, PB7213A-3 |
| U906D | 23783981 | E/W Board, PB7213A-4 |
| Y103 | 23563771 | Owner's Manual, German, 2896DD |
| Y104 | 23563772 | Owner's Manual, Italian, 2896DD |

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**TOSHIBA**

SERVICE MANUAL

# COLOUR TELEVISION

C7SS Chassis

# 2896DD, 7096DD

## – SUMMARY –

This supplement covers the added chassis replacement parts list and circuit of schematic diagram and others for above models.
Use this service manual together with the original service manual 2896DD (File No. 030-9926).

PRINTED IN JAPAN, Dec., 1999 Ⓢⓞ

# TABLE OF CONTENTS

## CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS .......... 3

SET-UP ADJUSTMENT .......... 4

SERVICE MODE .......... 6

DESIGN MODE .......... 9

ELECTRICAL ADJUSTMENTS .......... 10

CIRCUIT CHECK .......... 15

## CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA .......... 16

LOCATION OF CONTROLS (TV SET) .......... 17

CIRCUIT BLOCK DIAGRAM .......... 19

CHASSIS AND CABINET REPLACEMENT PARTS LIST .......... 20

PC BOARDS BOTTOM VIEW .......... 35

TERMINAL VIEW OF TRANSISTORS .......... 43

SPECIFICATIONS .......... 45

APPENDIX:

CIRCUIT DIAGRAM

# CHAPTER 1 GENERAL ADJUSTMENTS

## SAFETY INSTRUCTIONS

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

### X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is Ⓐ kV at zero beam current (minimum brightness) under a Ⓒ V AC power source. The high voltage must not, under any circumstances, exceed Ⓑ kV.

   Refer to table-1 for high voltage Ⓐ, Ⓑ & AC voltage Ⓒ.
   (See SETTING & ADJUSTING DATA on page 16)

   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

### SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; non-metallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

### PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

**WARNING**: BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

# SET-UP ADJUSTMENT

■ The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

1. Color Purity
2. Convergence
3. White Balance

Note: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning. Refer to figure 1.
Mounting position of the purity magnet assembly should fit to same position as old one because slightly difference to the position depend on a kind of tube.

* There are no adjustment of purity and convergence in some picture tube (Unified with purity magnet)

COLOR PURITY ADJUSTMENT

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least fifteen minutes.

1. Demagnetize the picture tube and cabinet using a degaussing coil.
2. Set the brightness and contrast to maximum.
3. Use a green raster from among the built-in test signals.
4. Loosen the clamp screw holding the yoke and slide the yoke backward or forward to provide vertical green belt (zone) in the picture screen.
5. Remove the Rubber Wedges.
6. Rotate and spread the tabs of the purity magnet (See figure 2.) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, enter the raster vertically.
7. Slowly move the yoke forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8. Check the purity of the red and blue raster.

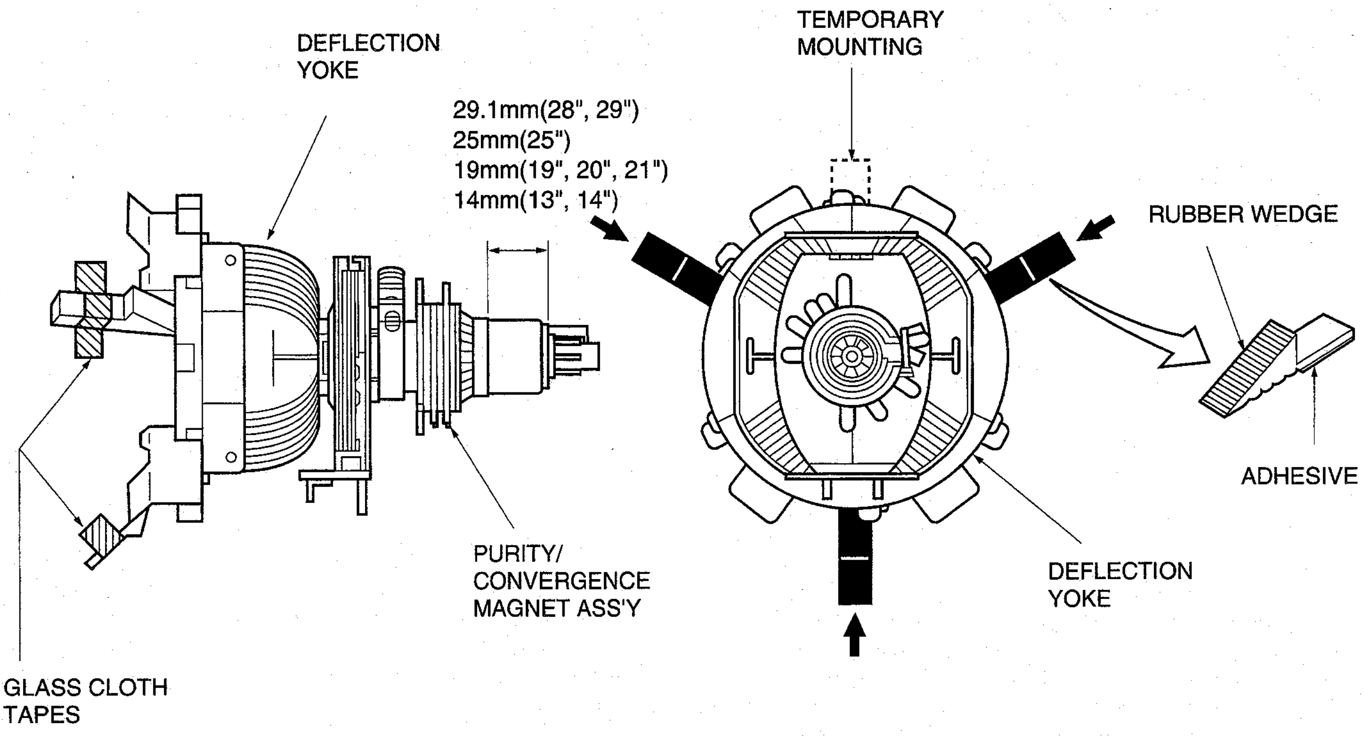


**Figure 1.**

## CONVERGENCE ADJUSTMENTS

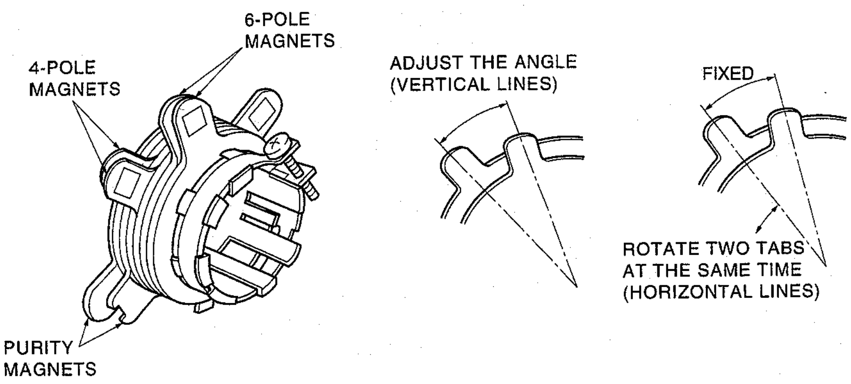
NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes.

### ■ CENTER CONVERGENCE ADJUSTMENT

1. Use the cross-dot pattern from among the built-in test signals.
2. Set the brightness and contrast for well defined pattern.
3. Adjust two tabs of the 4-Pole Magnets to change the angle between them (See figure 2.) and superimpose red and blue vertical lines in the center area of the picture screen.
4. Turn the both tabs at the same time keeping the angle constant to superimpose red and blue horizontal lines at the center of the screen.
5. Adjust two tabs of 6-Pole Magnets to superimpose red/blue line and green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole Magnets have mutual interaction and make dot movement complex.

### ■ CIRCUMFERENCE CONVERGENCE ADJUSTMENT

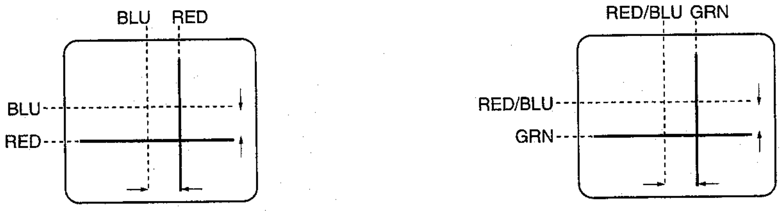
1. Loosen the clamping screw of deflection yoke slightly to allow the yoke to tilt.
2. Temporarily put a wedge as shown in figure 1. (Do not remove cover paper on adhesive part of the wedge.)
3. Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See figure 3.) Push the mounted wedge into the space between picture tube and the yoke to fix the yoke temporarily.
4. Put other wedge into bottom space and remove the cover paper to stick.
5. Tilt front of the yoke right or left to obtain better convergence in circumference. (See figure 3.)
6. Keep the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to fix the yoke.
7. Detach the temporarily mounted wedge and put it in another upper space. Stick it on picture tube to fix the yoke.
8. After fixing three wedges, recheck overall convergence. Tighten the screw firmly to fix the yoke and check the yoke is firm.
9. Stick three adhesive tapes on wedges as shown in figure 1.


6-POLE MAGNETS
4-POLE MAGNETS
PURITY MAGNETS
ADJUST THE ANGLE (VERTICAL LINES)
FIXED
ROTATE TWO TABS AT THE SAME TIME (HORIZONTAL LINES)

CONVERGENCE MAGNET ASSEMBLY

ADJUSTMENT OF MAGNETS

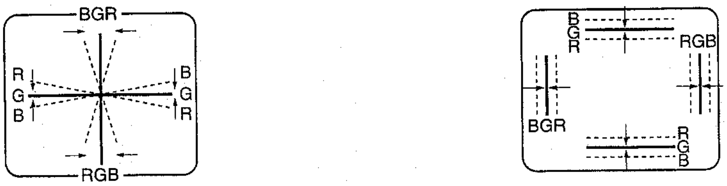
**Figure 2.**



4-POLE MAGNETS MOVEMENT

6-POLE MAGNETS MOVEMENT

Center Convergence by Convergence Magnets



INCLINE THE YOKE UP (OR DOWN)

INCLINE THE YOKE RIGHT (OR LEFT)

Circumference Convergence by DEF Yoke

**Figure 3.** Dot Movement Pattern

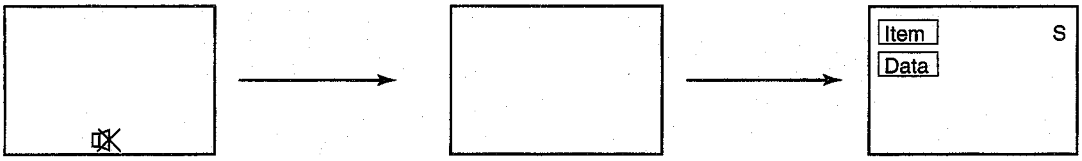
# SERVICE MODE

## 1. ENTERING TO SERVICE MODE

1) Press 🔇 button once on Remote Control.

2) Press 🔇 button again to keep pressing.

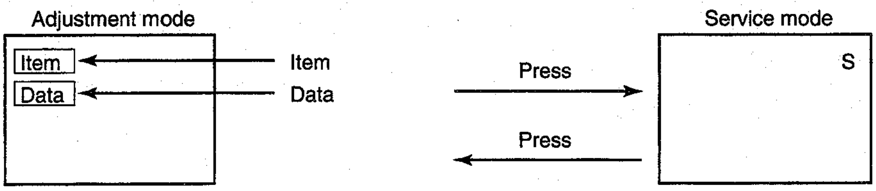
3) Keep pressing the 🔇 button, press MENU button on TV set.



(Service mode display)

## 2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



## 3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

| | | |
|---|---|---|
| A single horizontal line ON/OFF: | - / - - button (on Remote) or -⊙ button (on TV) | |
| Test signal selection : | -⊙ button (on Remote) | |
| Selection of the adjustment items : | CHANNEL ▲/▼ (on TV & Remote) | |
| Change of the data value : | VOLUME ⊿ +/– (on TV & Remote) | |
| Adjustment menu mode ON/OFF : | MENU button on TV | |
| Initialization of the memory (QA02) : | CALL + CHANNEL button on TV (▲) | |
| Reset the count of operating protect circuit to "00": | CALL + CHANNEL button on TV (▼) | |
| "RCUT" selection : | 1 button | |
| "GCUT" selection : | 2 button | |
| "BCUT" selection : | 3 button | |
| "CNTX" (or "SCNT") selection : | 4 button | |
| "COLC" selection : | 5 button- - - - | Color thickness correction<br>note: Displayed differently as shown below, depending on the setting of the receiving color system.<br>COLP (PAL)<br>COLC (NTSC)<br>COLS (SECAM) |
| "TNTC" selection : | 6 button | |
| Test audio signal ON/OFF (1kHz) : | 8 button | |
| Self diagnostic display ON/OFF : | 9 button | |

> CAUTION : Never try to perform initialization unless you have changed the memory IC.

### 4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

Refer to table-2 for preset data of adjustment mode.
(See SETTING & ADJUSTING DATA on page 16)

### 5. ADJUSTING THE DATA

1) Pressing of VOLUME ◿ +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

### 6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

### ■ INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02, the following initialization is required.

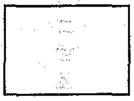
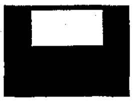
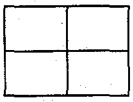
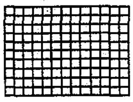
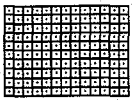
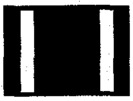
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above.
   Perform "Auto search Memory" on the owner's manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

### 7. TEST SIGNAL SELECTION

Every pressing of -⊙ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

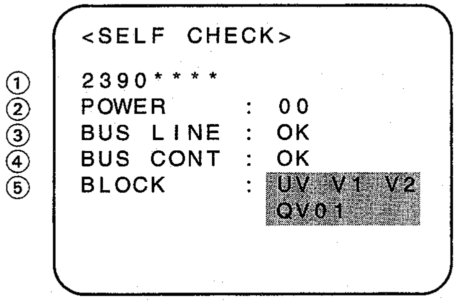
Signal off ——→ NTSC signals (14 patterns)
↑—— PAL signals (14 patterns) ←—┘

| Signals | Picture |
|---|---|
| • Red raster<br>• Green raster<br>• Blue raster<br>• All Black<br>• All White |  |
| • Black & White |  |
| • Black cross-bar<br>• White cross-bar<br>• Black cross-bar on green raster |  |
| • Black cross-hatch<br>• White cross-hatch |  |
| • Black cross-dot<br>• White cross-dot |  |
| • H signal (white)<br>• H signal (black) |  |

* The signals marked with ▨ are not usable to display in the Test signal for some model.

## SELF DIAGNOSTIC FUNCTION

1) Press "9" button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC's are executed properly.
2) During diagnosis, the following displays are shown.



```
   <SELF CHECK>

①  2390****
②  POWER     :  00
③  BUS LINE  :  OK
④  BUS CONT  :  OK
⑤  BLOCK     :  UV  V1  V2
                QV01
```

① Part number of microcomputer (QA01)

② Operation number of protecting circuit ----"00" is normal.
When indication is other than "00", overcurrent apts to flow, and circuit parts may possibly be damaged.

③ BUS LINE CHECK ----"OK" is normal.
"SCL(SCL1)-GND" ............... SCL-GND short circuit
"SDA(SDA1)-GND" .............. SDA-GND short circuit
"SCL(SCL1)-SDA (SDA1)" ... SCL-SDA short circuit

④ BUS CONT ----"OK" is normal.
When indication shows "Q ○○○ NG", the device with the number may possibly be damaged.

⑤BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (⊸1)
V2 : VIDEO 2 input mode (⊸2)

Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal----
Failure may exist in output line including QV01.

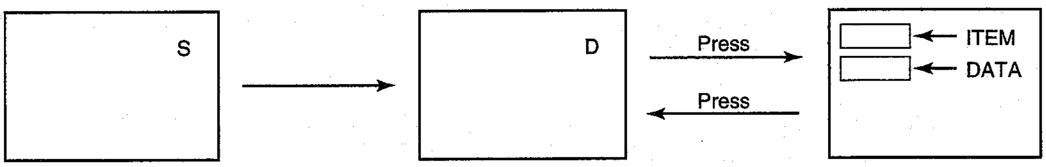
NOTE: Component which controls character display on screen is ICF01 (TELETEXT IC.). If this display function fails to operate due to damage in ICF01, self diagnosis procedure is as follows.
(1) In case that power indicator is blinking with interval of 0.5 seconds; it means protecting circuit (Current limiter) is operating, and circuit components may possibly be damaged. Check related components.
(2) In case that power indicator is blinking with interval of 1 second; Protecting circuit does not operate, but a part of Bus line does not operate normally. Check Bus line.

* The items marked with ▨ are not usable to display in the SELF DIAGNOSTIC FUCTION for some model.

# DESIGN MODE

## 1. ENTERING TO DESIGN MODE

1) Select the Service mode.
2) While pressing 🔇 (or CALL) button on Remote and press MENU button on TV.
3) Press MENU button on TV.



(Design mode) (Adjustment mode)

When QA02 is initialized, items "OPT0" and "OPT1" of DESIGN MODE are set to the data of the representative model of this chassis family.

Therefore, because ON-SCREEN specification remains in the state of the representative of model. This model is required to reset the data of items "OPT0" and "OPT1".

## 2. SELECTING THE ADJUSTING ITEMS

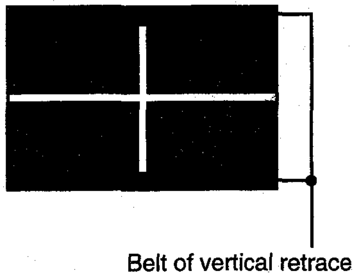
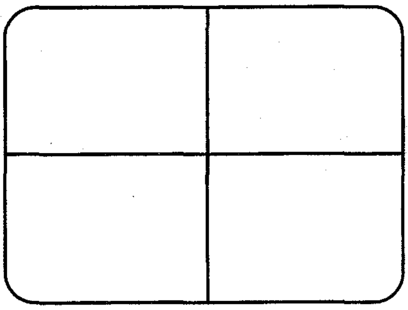
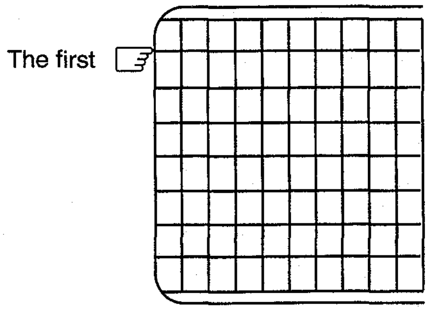
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.

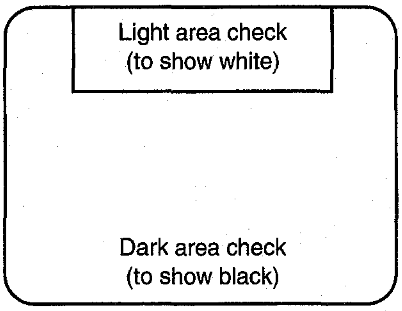
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 16)

## 3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ (◿ +/–) button will change the value of data.

# ELECTRICAL ADJUSTMENTS

| ITEM | ADJUSTMENT PROCEDURE |
|---|---|
| FOCUS VR ADJ. | 1. Enter the service mode, then select any register item.<br>2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen.<br>3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen. |
| SUB-BRIGHTNESS (BRTC)<br>Note: Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT). | 1. Set CONTRAST to minimum, and BRIGHTNESS to center by adjusting user controls.<br>2. Set the TV in service mode to get white cross-bar of inside pattern.<br>3. Select BRTC (brightness correction), and adjust the ⊿ – /+ button to reduce the value so that white portion of inside pattern slightly light.<br>4. Adjust ⊿ – /+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible.<br>After that, return vertical height and contrast.<br><br> |
| HORIZONTAL POSITION ADJUSTMENT (HPOS)<br>VERTICAL POSITION ADJUSTMENT (VPOS) | 1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit.<br>2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL ▲, ▼ buttons, and adjust horizontal or vertical picture position in the center of screen with VOLUME ⊿ – /+ buttons.<br> |
| VERTICAL AMPLITUDE ADJUSTMENT (HIT) | 1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit.<br>2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼ buttons, and adjust vertical amplitude with VOLUME ⊿ – /+ buttons so that vertical amplitude lacks a little.<br>3. Adjust vertical amplitude with VOLUME ⊿ – /+ buttons so that the first bar on cross-hatch signal touches edge of screen.<br><br> |

| ITEM | ADJUSTMENT PROCEDURE |
|---|---|
| WHITE BALANCE ADJUSTMENT<br>● CUTOFF ADJUSTMENT<br>(RCUT)<br>(GCUT)<br>(BCUT)<br>● DRIVE ADJUSTMENT<br>(GDRV)<br>(BDRV) | 1. Set Contrast to 40, and brightness to +20 by picture control.<br>2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button.<br>3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to 32, and to set GDRV and BDRV to 20 with VOLUME ⊿ – /+ buttons.<br>4. Press [-/- -] button on the remote control and rotate Screen VR to get one slight horizontal line on screen.<br>Note: Every pressing of [-/- -] button provides Horizontal line picture and Normal picture alternately.<br>5. Press [-/- -] button to release horizontal line picture, and select the two other colors which did not light in the above step with CHANNEL ▲, ▼ buttons. Then tap VOLUME ⊿ – /+ buttons so that three colors slightly light in the same level.<br>※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust.<br>※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT.<br> Light area check<br>(to show white)<br>Dark area check<br>(to show black) |

## C7SS Series (Reference Factory Adjustments)

**Item. [SCNT]**

Name. SUB-CONTRAST

SETTING. DYNAMIC MODE

Input signal. SUB-BRIGHT SIGNAL

Measurement place. Q501 #55PIN (TP501)

Adjustment method.

Adjust the amplitude from pedestal-level to a white peak.

Making standard 2.3±0.2Vop

**Item. [BRTC]**

Name. SUB-BRIGHT CENTER

SETTING. DYNAMIC MODE

Input signal. SUB-BRIGHT SIGNAL

Measurement place. On picture

Adjustment method. It is black step of the (*sub-bright*) signal and adjust the number.

Making standard 4±1.5 bar

**Item. [COLP]**

Name. SUB-COLOR CENTER (PAL)

SETTING. DYNAMIC MODE

Input signal. SUB-BRIGHT SIGNAL (PAL)

Measurement place. Q501 #55PIN (TP501)

Adjustment method. Adjust the amplitude of B-Y.

Making standard 1.40±0.2 Vop

**Item. [RCUT], [GCUT], [BCUT], [GDRV], [BDRV], [SCREEN VR]**

Name. CUT OFF/DRIVE ADJUST

SETTING. [RCUT], [GCUT], [BCUT], [GDRV], [BDRV] each data set = 40h
Set to White line mode0

Input signal. White signal

Measurement place. On picture.

Adjustment method.

Raise screen VR gradually and stop in the place where the line of either of R or G or B shines slightly. Decide the position of screen VR there.

Raise the color data other than the line which shines by first gradually shine point.

Stop in the place which shines in most white. Make clear white line mode.

Adjust it repeatedly for both the shade part and discernment to become a correct numerical value by using proofread CA100.

Making standard 103cd/$m^2$ 8750K –0.002uv 17cd/$m^2$ 8750K –0.002uv

**Item. [BELL]**

Name. BELL FILTER
SETTING. NONE
Input signal. SECAM COLOR BAR.
Measurement place. QQ01 #21 (TPM01)
Adjustment method. Adjust with the synchroscope as the display crimp is flat.
Making standard 100±10%

**Item. [SRY]**

Name. SECAM R-Y BLACK LEVEL.
SETTING. DYNAMIC MODE
Input signal. SECAM COLOR BAR.
Measurement place. Q501 #55 (TP501)
Adjustment method. Adjust [SRY] the level of the monochrome signal part must be a match to the level of horizontal blanking signal.
Making standard 0±40mV

**Item. [SBY]**

Name. SECAM B-Y BLACK LEVEL.
SETTING. DYNAMIC MODE
Input signal. SECAM COLOR BAR.
Measurement place. Q501 #55 (TP501)
Adjustment method. Adjust [SBY] the level of the monochrome signal part must be a mutch to the level of horizontal blanking signal.
Making standard 0±40mV

**Item. [COLS]**

Name. SUB-COLOR CENTER (SECAM).
SETTING. DYNAMIC MODE
Input signal. SECAM COLOR BAR.
Measurement place. Q501 #55 (TP501)
Adjustment method. Adjust the amplitude of R-Y. (Mute the picture in adjustment)
Making standard 1.90±0.2Vop (Pedestal to peak)

**Item. [VERT POSITION]**

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER
Input signal. WG Philips Pattern (Do not use French SECAM).
Measurement place. On Screen
Adjustment method. a:Adjust the height so as to appear the flag of both upper and lower side.
b:Adjust the picture to the center of the screen by [VPOS].

### Item. [V.HEIGHT]

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER

Input signal. WG Philips Pattern (Do not use French SECAM).

Measurement place. On Screen

Adjustment method. Adjust the Picture so as to just disappear the flag of both upper and lower side with [HIT].

### Item. [HORIZONTAL POSITION]

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER

Input signal. WG Philips Pattern (Do not use French SECAM).

Measurement place. On Screen

Adjustment method. Adjust the Picture of Philips pattern to the center of the screen with [HPOS]. (Minimize D-C by the CRT adjustment magnetic field)

### Item. [HORIZONTAL WIDTH] [SIDE PINCTION] [TRAPEZOID DISTORTION]

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER
After V-HIGHT/V-POSITION adjustment.

Input signal. WG Philips Pattern (Do not use French SECAM).

Measurement place. On Screen

Adjustment method.

1. Width: a: French Model; Adjust the width to just disappear the first line marker inside the flag of left and right side with [WID].
   b: Other Model; Adjust the width to just disappear the flag of both left and right side with [WID].
2. E/W : Adjust the vertical bar of both left and right end to the straightline it with [DPC].
3. Trapezium : Compensate the trapeqoid distortion with [TRAP].
4. Width : Adjust the width again. (Turn the direction of CPT to the east or the west when adjusting. adjust the amount offsetting if it is not possible to do.)

### Item. [Vertical, synchronous VR adjustment] (R4350)]

SETTING. UNIT ADJUSTMENT

Adjustment method. Supply +12V to the terminal HVCC.

Adjust the frequency of the terminal Q420#24 with a frequency counter to
80.0(+2.0)(−1.0)Hz.

Note: Connect power supply GND with GND of all connectors when you supply the power supply.

### Item. [Horizontal, synchronous VR adjustment] (R4450)

SETTING. UNIT ADJUSTMENT

Adjustment method. Supply +12V to the terminal HVCC.

Adjust the frequency of the terminal Q420#24 with a frequency counter to
31.36±0.15kHz.

Note: Connect power supply GND with GND of all connectors when you supply the power supply.

# CIRCUIT CHECK

## HIGH VOLTAGE CHECK

**CAUTION:** There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below Ⓑ kV.

Refer to table-1 for high voltage Ⓑ.
(See SETTING & ADJUSTING DATA on page 16)

4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

# CHAPTER 2 SPECIFIC INFORMATIONS

## SETTING & ADJUSTING DATA

### 【 SAFETY INSTRUCTIONS 】

| | | 2896DD | 7096DD |
|---|---|---|---|
| HIGH VOLTAGE AT ZERO BEAM: | Ⓐ | 29.5 kV | 29.5 kV |
| MAX HIGH VOLTAGE: | Ⓑ | 32.0 kV | 32.0 kV |
| AV VOLTAGE: | Ⓒ | 220 ~ 240 V | |

**Table-1**

### 【 SERVICE MODE 】

**ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:**

| Item | Adjustments | Reference data |
|---|---|---|
| RCUT | R CUTOFF (B/W) | 40H |
| GCUT | G CUTOFF (B/W) | 40H |
| BCUT | B CUTOFF (B/W) | 40H |
| GDRV | G DRIVE | 40H |
| BDRV | B DRIVE | 40H |
| CNTX | SUB CONTRAST MAX (4:3 MODE) | 7FH |
| BRTC | SUB BRIGHT CEN | 80H |
| COLC | SUB COLOR CEN NTSC | 00H |
| TNTC | SUB TINT CEN | 48H |
| COLP | SUB COLOR CEN PAL | 1FH |
| COLS | SUB COLOR CEN SECAM | E7H |
| SCOL | SUB COLOR | 04H |
| SCNT | SUB CONTRAST | 09H |
| VOLS | VOL SCART | 00H |
| FVOL | FM VOL PRE SCALE | 00H |
| NVOL | NICAM VOL PRE SCALE | 00H |
| NICL | NICAM THRESHOLD LEVEL | 00H |
| NICH | NICAM THRESHOLD LEVEL | 00H |
| IDL | IGR THRESHOLD LEVEL | 00H |
| IDH | IGR THRESHOLD LEVEL | 00H |

| Item | Adjustments | Reference data |
|---|---|---|
| XVOL | EXT PRE. VOLUME | 11H |
| EMX | NICAM ON LEVEL | FCH |
| EMN | NICAM OFF LEVEL | 64H |
| HPOS | 50Hz H-POSITION | 05H |
| VPOS | V-POSITION | 0BH |
| HIT | HEIGHT | 58H |
| VLIN | V-LINEARITY | 16H |
| VSC | V-S CORRECTION | 19H |
| VPS | V-SHIFT | 0BH |
| VCP | V-COMPENSATION | 09H |
| WID | PICTURE WIDTH | 2BH |
| PARA | E-W PARABOLA | 29H |
| CNR | E-W CORNER | 04H |
| TRAP | TRAPEZIUM | 27H |
| HCP | H-COMPENSATION | 08H |
| VFC | V-F CORRECTION | 0FH |
| BELL | SECAM BELL FILTER | 7EH |
| SRY | SECAM R-Y | 08H |
| SBY | SECAM B-Y | 08H |

**Table-2**

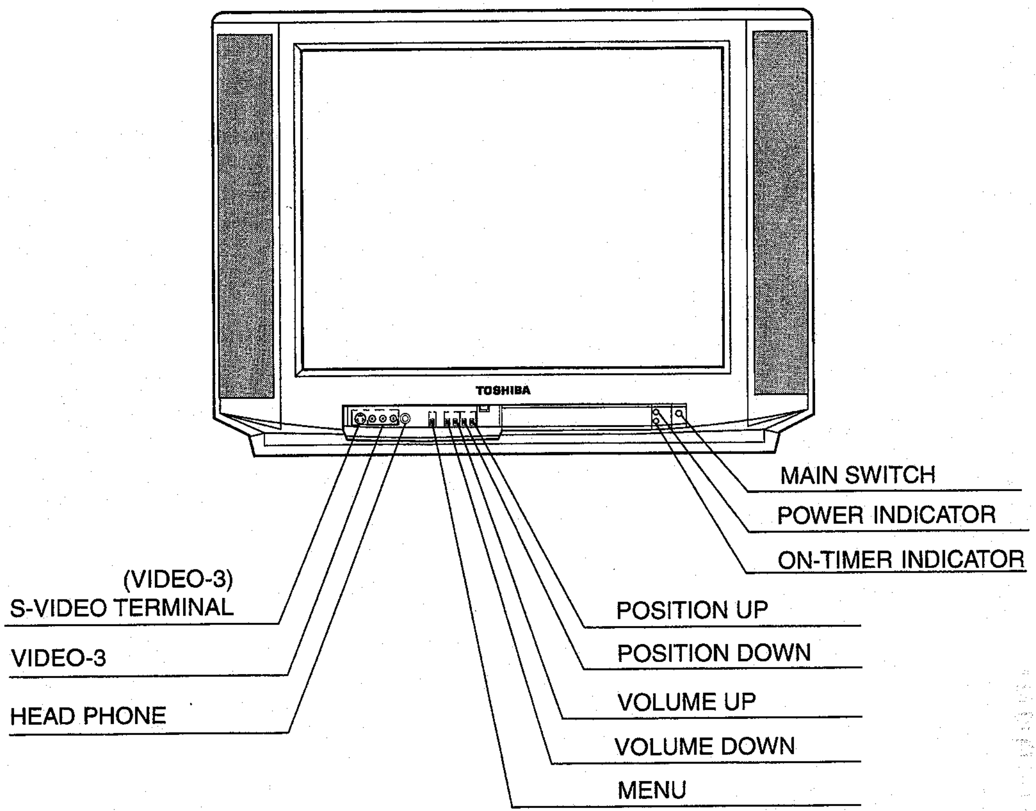
### 【 DESIGN MODE 】

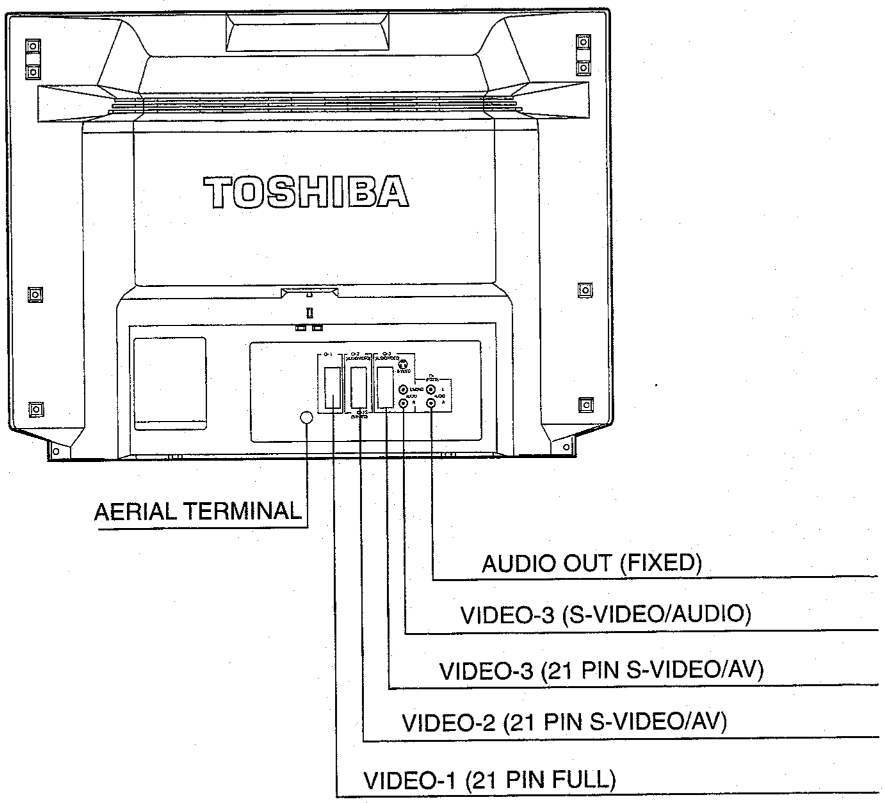
**ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:**

| Item | Name of adjustment | | Data | | Remarks |
|---|---|---|---|---|---|
| | | Preset Data | 2896DD | 7096DD | |
| | *There are no adjustment in the DESIGN MODE. | | | | |

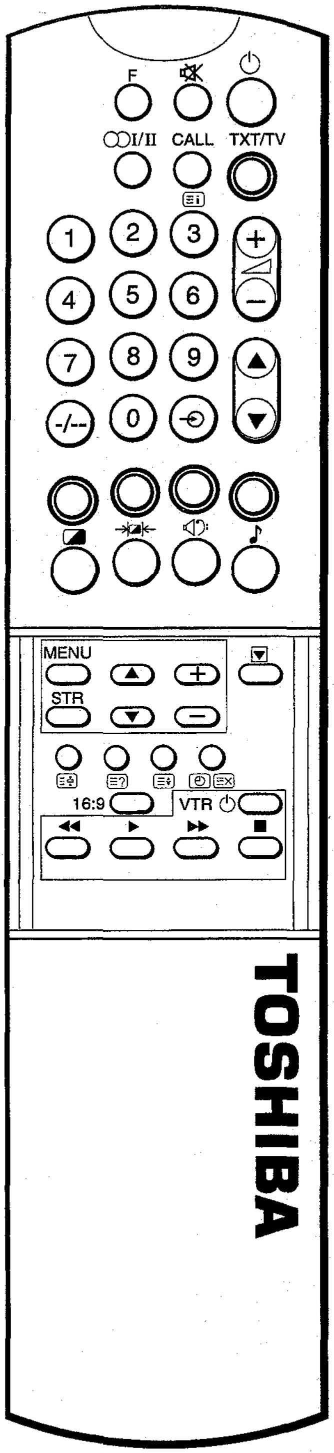
**Table-3**

# LOCATION OF CONTROLS (TV SET)


TOSHIBA
MAIN SWITCH
POWER INDICATOR
ON-TIMER INDICATOR
(VIDEO-3) S-VIDEO TERMINAL
VIDEO-3
HEAD PHONE
POSITION UP
POSITION DOWN
VOLUME UP
VOLUME DOWN
MENU


TOSHIBA
AERIAL TERMINAL
AUDIO OUT (FIXED)
VIDEO-3 (S-VIDEO/AUDIO)
VIDEO-3 (21 PIN S-VIDEO/AV)
VIDEO-2 (21 PIN S-VIDEO/AV)
VIDEO-1 (21 PIN FULL)

# LOCATION OF CONTROLS (REMOTE CONTROL)



## KEY ASSIGNMENT

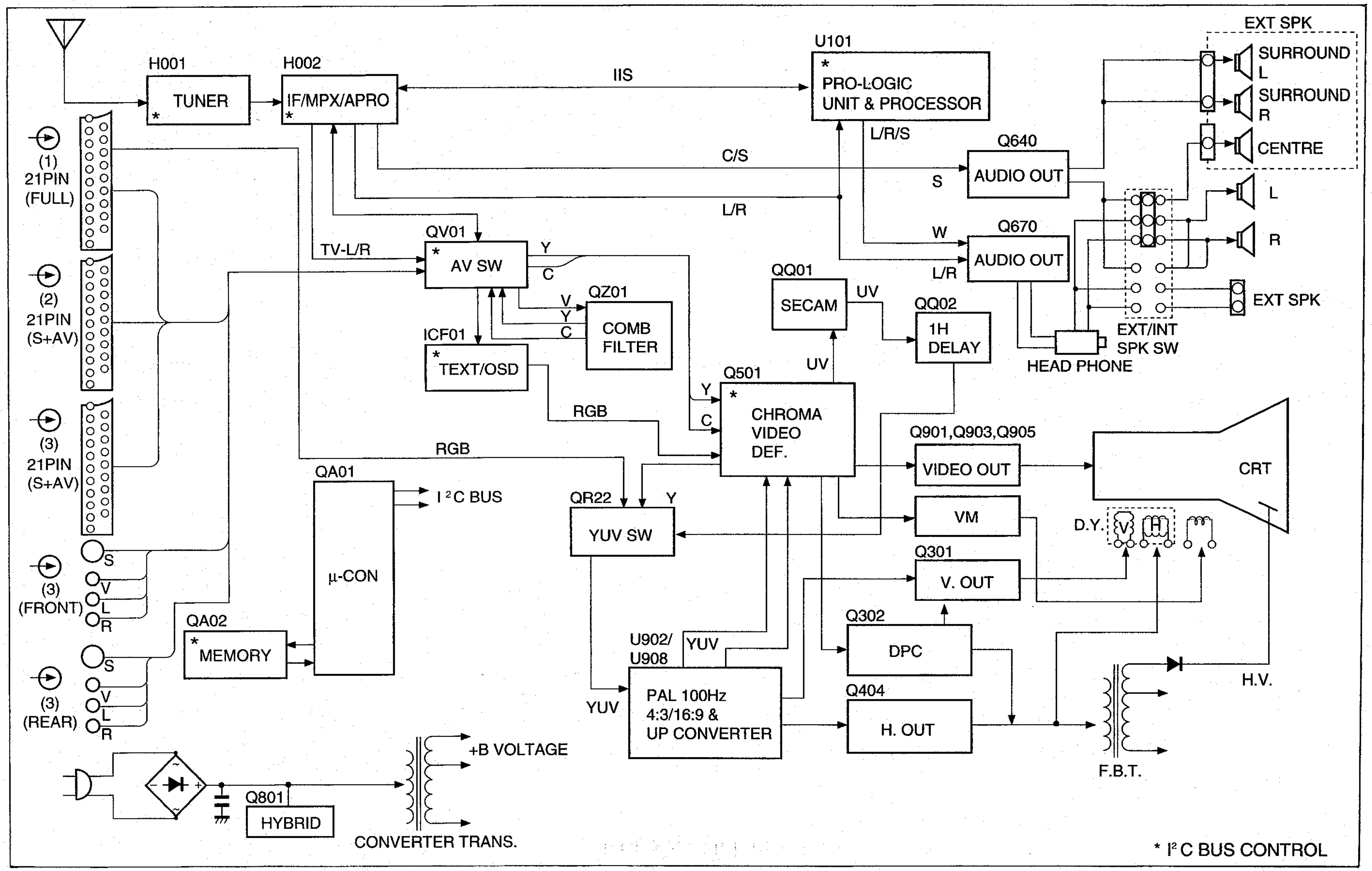
⏻ ............ ON/STAND-BY
🔇 ........... Sound mute
F ............. (Quick/advanced operation)
CALL (On-screen call)/▤ (index, initial) .......... TELETEXT MODE
◪ ........... PICTURE MENU
♪ ............. SOUND MENU
ↀ I/II ..... <TV MODE> .......... STEREO BILINGUAL
1~9, 0 ..... TEN KEY
- / - - ........ 1 or 2 place
⊖ .......... VIDEO INPUT (EXTERNAL INPUT SOURCE SW.)
◿ .......... VOLUME
+ ............. LEVEL PLUS (VOLUME, MENU)
– ............. LEVEL MINUS (VOLUME, MENU)
▲ ............ UP (POSI., CH., TEXT PAGE)
▼ ............ DOWN (POSI., CH., TEXT PAGE)

TELE-TEXT
- TXT/TV ... TEXT, MIX, TV MODE SW.
- ▤ ........... HOLD
- ▤ ........... <TEXT MODE> ....... REVEAL / CONCEAL
- ▤ ........... <TEXT MODE> ....... F-T-B (FULL, TOP, BOTTOM)
- ▤/▤....... TIME DISPLAY (TV MODE) TEXT CLEAR (TEXT MODE)
- FLOF COLOUR KEY (4 key used) Red/Green/Yellow/Blue

🔈.................. Super woofer
→|◪|← ............ Selectable picture
MENU........... TUNING & OTHER MENU
STR .............. Store
▲ / ▼ ........ Menu select
− / + ....... Level down/up
16:9 .............. PIC SIZE (Picture size select)

VTR control
⏻ Power on/standby
▶ Play
■ Stop
◀◀ Rewind
▶▶ Fast forward

# CIRCUIT BLOCK DIAGRAM


H001
TUNER
H002
IF/MPX/APRO
IIS
U101
PRO-LOGIC UNIT & PROCESSOR
L/R/S
C/S
L/R
S
W
L/R
Q640
AUDIO OUT
Q670
AUDIO OUT
EXT SPK
SURROUND L
SURROUND R
CENTRE
L
R
EXT SPK
EXT/INT SPK SW
HEAD PHONE
(1) 21PIN (FULL)
(2) 21PIN (S+AV)
(3) 21PIN (S+AV)
(3) (FRONT)
(3) (REAR)
S
V
L
R
TV-L/R
QV01
AV SW
Y
C
V
Y
C
QZ01
COMB FILTER
ICF01
TEXT/OSD
RGB
RGB
QQ01
SECAM
UV
UV
QQ02
1H DELAY
Q501
CHROMA VIDEO DEF.
Y
C
Q901,Q903,Q905
VIDEO OUT
CRT
VM
D.Y.
V
H
QA01
μ-CON
I ²C BUS
QA02
MEMORY
QR22
YUV SW
Y
YUV
U902/ U908
PAL 100Hz 4:3/16:9 & UP CONVERTER
YUV
Q301
V. OUT
Q302
DPC
Q404
H. OUT
F.B.T.
H.V.
Q801
HYBRID
+B VOLTAGE
CONVERTER TRANS.
*

* I² C BUS CONTROL

# CHASSIS AND CABINET REPLACEMENT PARTS LIST

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

**CAUTION:** The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

*NOTICE:*

- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

**Models : 2896DD, 7096DD**

| | | | | | | |
|---|---|---|---|---|---|---|
| Capacitors ............. | CD : | Ceramic Disk | PF : | Plastic Film | EL : | Electrolytic |
| Resistors ............... | CF : | Carbon Film | CC : | Carbon Composition | MF : | Metal Film |
| | OMF : | Oxide Metal Film | VR : | Variable Resistor | FR : | Fusible Resistor |

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

| Location No. | Part No. | Description |
|---|---|---|
| **CAPACITORS** | | |
| C102 | 24763221 | EL, 220μF, ±20%, 16V |
| C103 | 24232103 | CD, 0.01μF, +80%, -20% |
| C104 | 24794470 | EL, 47μF, ±20%, 16V |
| C105 | 24212102 | CD, 1000pF, ±10% |
| C106 | 24797100 | EL, 10μF, ±20%, 50V |
| C107 | 24763221 | EL, 220μF, ±20%, 16V |
| C108 | 24763101 | EL, 100μF, ±20%, 16V |
| C109 | 24232103 | CD, 0.01μF, +80%, -20% |
| C115 | 24232103 | CD, 0.01μF, +80%, -20% |
| C116 | 24763221 | EL, 220μF, ±20%, 16V |
| C183 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C201 | 24206100 | EL, 10μF, ±20%, 50V |
| C203 | 24538104 | PF, 0.1μF |
| C204 | 24206010 | EL, 1μF, ±20%, 50V |
| C205 | 24206229 | EL, 2.2μF, ±20%, 50V |
| C206 | 24797220 | EL, 22μF, ±20%, 50V |
| C207 | 24436100 | CD, 10pF |
| C208 | 24436100 | CD, 10pF |
| C209 | 24436100 | CD, 10pF |
| C211 | 24353330 | CD, 33pF, CH |
| C212 | 24794100 | EL, 10μF, ±20%, 16V |
| C214 | 24591334 | PF, 0.33μF |
| C215 | 24474101 | CD, 100pF, ±10% |
| C216 | 24474101 | CD, 100pF, ±10% |
| C218 | 24473390 | CD, 39pF |
| C303 | 24214471 | CD, 470pF, ±10%, 500V |
| C304 | 24693473 | PF, 0.047μF, 100V |
| C305 | 24617912 | EL, 2.2μF, ±10%, 50V |
| C306 | 24073059 | EL, 3300μF, ±20%, 25V |
| C307 | 24793101 | EL, 100μF, ±20%, 10V |
| C308 | 24668221 | EL, 220μF, ±20%, 35V |
| C309 | 24668101 | EL, 100μF, ±20%, 35V |
| C310 | 24796222 | EL, 2200μF, ±20%, 35V |
| C311 | 24538473 | PF, 0.047μF |
| C312 | 24591273 | PF, 0.027μF |
| C313 | 24082058 | PF, 0.27μF, 100V |
| C315 | 24212102 | CD, 1000pF, ±10% |
| C315 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C316 | 24538393 | PF, 0.039μF |
| C318 | 24666101 | EL, 100μF, ±20%, 16V |
| C319 | 24212102 | CD, 1000pF, ±10% |
| C321 | 24591203 | PF, 0.02μF |
| C323 | 24538224 | PF, 0.22μF |
| C324 | 24538683 | PF, 0.068μF |
| C325 | 24617912 | EL, 2.2μF, ±10%, 50V |
| C327 | 24617787 | EL, 470μF, ±20%, 16V |
| C328 | 24232103 | CD, 0.01μF, +80%, -20% |
| C341 | 24797478 | EL, 0.47μF, ±20%, 50V |
| C366 | 24693473 | PF, 0.047μF, 100V |
| C370 | 24794101 | EL, 100μF, ±20%, 16V |
| C371 | 24794100 | EL, 10μF, ±20%, 16V |
| C401 | 24538104 | PF, 0.1μF |
| C403 | 24591333 | PF, 0.033μF |
| C404 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C410 | 24092341 | CD, 470pF, ±10%, 2kV |
| C413 | 24214332 | CD, 3300pF, ±10%, 500V |
| C416 | 24668101 | EL, 100μF, ±20%, 35V |
| C417 | 24214391 | CD, 390pF, ±10%, 500V |
| C419 | 24212102 | CD, 1000pF, ±10% |
| C420 | 24763101 | EL, 100μF, ±20%, 16V |
| C421 | 24539104 | PF, 0.1μF |
| C423 | 24829473 | PF, 0.047μF, 400V |
| C430 | 24232103 | CD, 0.01μF, +80%, -20% |
| C431 | 24212103 | CD, 0.01μF, ±10% |
| C431 | 24794102 | EL, 1000μF, ±20%, 16V |
| C439 | 24082832 | PF, 3600pF, ±3%, 1800V |
| C440 | 24082831 | PF, 3300pF, ±3%, 1800V |
| C442 | 24082642 | PF, 0.16μF, 400V |
| C443 | 24082644 | PF, 0.2μF, 400V |
| C444 | 24082827 | PF, 2200pF, ±3%, 1800V |
| C445 | 24828473 | PF, 0.047μF, 200V |
| C446 | 24820103 | PF, 0.01μF, 630V |
| C448 | 24640908 | EL, 33μF, ±20%, 160V |
| C460 | 24796331 | EL, 330μF, ±20%, 35V |
| C461 | 24082827 | PF, 2200pF, ±3%, 1800V |
| C462 | 24796222 | EL, 2200μF, ±20%, 35V |
| C463 | 24212392 | CD, 3900pF, ±10% |
| C464 | 24640900 | EL, 4.7μF, ±20%, 100V |
| C466 | 24095884 | PF, 0.013μF, ±3%, 630V |
| C469 | 24092337 | CD, 220pF, ±10%, 2kV |
| C470 | 24794220 | EL, 22μF, ±20%, 16V |

| Location No. | Part No. | Description |
|---|---|---|
| C472 | 24538474 | PF, 0.47µF |
| C473 | 24669010 | EL, 1µF, ±20%, 50V |
| C475 | 24095887 | PF, 0.01µF, ±3%, 630V |
| C477 | 24590563 | PF, 0.056µF |
| C478 | 24590563 | PF, 0.056µF |
| C479 | 24214471 | CD, 470pF, ±10%, 500V |
| C481 | 24538104 | PF, 0.1µF |
| C484 | 24591152 | PF, 1500pF |
| C491 | 24082749 | PF, 1.5µF, 250V |
| C492 | 24082645 | PF, 0.47µF, 400V |
| C494 | 24082644 | PF, 0.2µF, 400V |
| C495 | 24092343 | CD, 680pF, ±10%, 2kV |
| C496 | 24092343 | CD, 680pF, ±10%, 2kV |
| C501 | 24212101 | CD, 100pF, ±10% |
| C502 | 24232103 | CD, 0.01µF, +80%, -20% |
| C503 | 24793471 | EL, 470µF, ±20%, 10V |
| C504 | 24591222 | PF, 2200pF |
| C505 | 24353120 | CD, 12pF, CH |
| C507 | 24353120 | CD, 12pF, CH |
| C508 | 24206100 | EL, 10µF, ±20%, 50V |
| C509 | 24763101 | EL, 100µF, ±20%, 16V |
| C510 | 24763101 | EL, 100µF, ±20%, 16V |
| C511 | 24232103 | CD, 0.01µF, +80%, -20% |
| C512 | 24206228 | EL, 0.22µF, ±20%, 50V |
| C513 | 24092398 | CD, 0.1µF, +80%, -20%, 25V |
| C514 | 24538104 | PF, 0.1µF |
| C515 | 24538104 | PF, 0.1µF |
| C516 | 24212102 | CD, 1000pF, ±10% |
| C517 | 24353010 | CD, 1pF, ±0.25pF, CH |
| C520 | 24474102 | CD, 1000pF, ±10% |
| C521 | 24212102 | CD, 1000pF, ±10% |
| C522 | 24473470 | CD, 47pF |
| C523 | 24473470 | CD, 47pF |
| C526 | 24474101 | CD, 100pF, ±10% |
| C599 | 24353010 | CD, 1pF, ±0.25pF, CH |
| C613 | 24794470 | EL, 47µF, ±20%, 16V |
| C652 | 24668471 | EL, 470µF, ±20%, 35V |
| C661 | 24538104 | PF, 0.1µF |
| C664 | 24203100 | EL, 10µF, ±20%, 16V |
| C665 | 24206229 | EL, 2.2µF, ±20%, 50V |
| C666 | 24206229 | EL, 2.2µF, ±20%, 50V |
| C667 | 24232103 | CD, 0.01µF, +80%, -20% |
| C668 | 24212102 | CD, 1000pF, ±10% |
| C669 | 24668330 | EL, 33µF, ±20%, 35V |
| C670 | 24668330 | EL, 33µF, ±20%, 35V |
| C671 | 24797010 | EL, 1µF, ±20%, 50V |
| C673 | 24474102 | CD, 1000pF, ±10% |
| C673 | 24797010 | EL, 1µF, ±20%, 50V |
| C674 | 24474102 | CD, 1000pF, ±10% |
| C674 | 24797010 | EL, 1µF, ±20%, 50V |
| C675 | 24474102 | CD, 1000pF, ±10% |
| C675 | 24795470 | EL, 47µF, ±20%, 25V |
| C676 | 24474102 | CD, 1000pF, ±10% |
| C676 | 24797479 | EL, 4.7µF, ±20%, 50V |
| C677 | 24591102 | PF, 1000pF |
| C678 | 24474102 | CD, 1000pF, ±10% |
| C678 | 24591102 | PF, 1000pF |
| C679 | 24474102 | CD, 1000pF, ±10% |
| C680 | 24668102 | EL, 1000µF, ±20%, 35V |
| C681 | 24474102 | CD, 1000pF, ±10% |
| C681 | 24668471 | EL, 470µF, ±20%, 35V |
| C682 | 24474102 | CD, 1000pF, ±10% |
| C682 | 24668471 | EL, 470µF, ±20%, 35V |
| C684 | 24591124 | PF, 0.12µF |

| Location No. | Part No. | Description |
|---|---|---|
| C685 | 24591124 | PF, 0.12µF |
| C686 | 24591124 | PF, 0.12µF |
| C687 | 24232103 | CD, 0.01µF, +80%, -20% |
| C688 | 24203220 | EL, 22µF, ±20%, 16V |
| C704 | 24232103 | CD, 0.01µF, +80%, -20% |
| C705 | 24797229 | EL, 2.2µF, ±20%, 50V |
| C707 | 24794470 | EL, 47µF, ±20%, 16V |
| C712 | 24666470 | EL, 47µF, ±20%, 16V |
| C713 | 24790100 | EL, 10µF, ±20%, 160V |
| C714 | 24436101 | CD, 100pF |
| C715 | 24214472 | CD, 470pF, ±10%, 500V |
| C716 | 24436101 | CD, 100pF |
| C717 | 24214472 | CD, 470pF, ±10%, 500V |
| C718 | 24794470 | EL, 47µF, ±20%, 16V |
| C719 | 24435151 | CD, 150pF, 500V, SL |
| C720 | 24790100 | EL, 10µF, ±20%, 160V |
| C721 | 24794470 | EL, 47µF, ±20%, 16V |
| ⚠C801 | 24082927 | PF, 0.22µF, ±20%, AC275V |
| ⚠C802 | 24082927 | PF, 0.22µF, ±20%, AC275V |
| ⚠C805 | 24092281 | CD, 4700pF, ±20%, AC250V |
| C806 | 24092281 | CD, 4700pF, ±20%, AC250V |
| C807 | 24567474 | PF, 0.47µF |
| C808 | 24667331 | EL, 330µF, ±20%, 25V |
| C809 | 24214471 | CD, 470pF, ±10%, 500V |
| C810 | 24086873 | EL, 330µF, ±20%, 400V |
| ⚠C813 | 24092557 | CD, 220pF, ±20%, AC250V |
| ⚠C814 | 24092557 | CD, 220pF, ±20%, AC250V |
| C816 | 24669221 | EL, 220µF, ±20%, 50V |
| C817 | 24092341 | CD, 470pF, ±10%, 2kV |
| C818 | 24095931 | PF, 2200pF, 1250V |
| C819 | 24676220 | EL, 22µF, ±20%, 100V |
| C820 | 24092343 | CD, 680pF, ±10%, 2kV |
| C821 | 24214471 | CD, 470pF, ±10%, 500V |
| C829 | 24590182 | PF, 1800pF |
| C831 | 24794470 | EL, 47µF, ±20%, 16V |
| C832 | 24794470 | EL, 47µF, ±20%, 16V |
| C833 | 24669100 | EL, 10µF, ±20%, 50V |
| C834 | 24797100 | EL, 10µF, ±20%, 50V |
| C835 | 24794470 | EL, 47µF, ±20%, 16V |
| C841 | 24669100 | EL, 10µF, ±20%, 50V |
| C842 | 24669100 | EL, 10µF, ±20%, 50V |
| C843 | 24538104 | PF, 0.1µF |
| C846 | 24538104 | PF, 0.1µF |
| C884 | 24086916 | EL, 330µF, ±20%, 160V |
| C885 | 24214471 | CD, 470pF, ±10%, 500V |
| C887 | 24214471 | CD, 470pF, ±10%, 500V |
| C889 | 24668222 | EL, 2200µF, ±20%, 35V |
| C892 | 24667222 | EL, 2200µF, ±20%, 25V |
| C893 | 24092337 | CD, 220pF, ±10%, 2kV |
| C895 | 24669470 | EL, 47µF, ±20%, 50V |
| C896 | 24214471 | CD, 470pF, ±10%, 500V |
| C897 | 24666332 | EL, 3300µF, ±20%, 16V |
| C898 | 24590153 | PF, 0.015µF |
| C899 | 24214471 | CD, 470pF, ±10%, 500V |
| C902 | 24092353 | CD, 4700pF, ±10%, 2kV |
| C904 | 24436471 | CD, 470pF |
| C905 | 24436471 | CD, 470pF |
| C907 | 24436471 | CD, 470pF |
| C909 | 24679220 | EL, 22µF, ±20%, 250V |
| C910 | 24797478 | EL, 0.47µF, ±20%, 50V |
| C911 | 24203100 | EL, 10µF, ±20%, 16V |
| C912 | 24794102 | EL, 1000µF, ±20%, 16V |
| C913 | 24763102 | EL, 1000µF, ±20%, 16V |
| C914 | 24212103 | CD, 0.01µF, ±10% |

| Location No. | Part No. | Description |
|---|---|---|
| C915 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| C920 | 24591104 | PF, 0.1μF |
| C921 | 24591104 | PF, 0.1μF |
| C930 | 24214101 | CD, 100pF, ±10%, 500V |
| C931 | 24214101 | CD, 100pF, ±10%, 500V |
| C4031 | 24591562 | PF, 5600pF |
| C4041 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C4301 | 24797010 | EL, 1μF, ±20%, 50V |
| C4303 | 24591433 | PF, 0.043μF |
| C4304 | 24591153 | PF, 0.015μF |
| C4305 | 24794101 | EL, 100μF, ±20%, 16V |
| C4306 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4307 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4311 | 24794471 | EL, 470μF, ±20%, 16V |
| C4401 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4402 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4403 | 24501561 | PF, 560pF |
| C4404 | 24501132 | PF, 0.0013μF |
| C4405 | 24797479 | EL, 4.7μF, ±20%, 50V |
| C4406 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4408 | 24766229 | EL, 2.2μF, ±20%, 50V |
| C4412 | 24501132 | PF, 0.0013μF |
| C4413 | 24501102 | PF, 0.001μF |
| C4414 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4415 | 24567474 | PF, 0.47μF |
| C4416 | 24501161 | PF, 160pF |
| C4417 | 24590332 | PF, 3300pF |
| C4421 | 24353330 | CD, 33pF, CH |
| C4466 | 24820103 | PF, 0.01μF, 630V |
| CA13 | 24474101 | CD, 100pF, ±10% |
| CA30 | 24474101 | CD, 100pF, ±10% |
| CA33 | 24232103 | CD, 0.01μF, +80%, -20% |
| CA37 | 24474101 | CD, 100pF, ±10% |
| CA38 | 24474101 | CD, 100pF, ±10% |
| CA42 | 24794100 | EL, 10μF, ±20%, 16V |
| CA44 | 24232103 | CD, 0.01μF, +80%, -20% |
| CA68 | 24794100 | EL, 10μF, ±20%, 16V |
| CA69 | 24232103 | CD, 0.01μF, +80%, -20% |
| CB01 | 24794470 | EL, 47μF, ±20%, 16V |
| CC09 | 24212471 | CD, 470pF, ±10% |
| CC10 | 24474101 | CD, 100pF, ±10% |
| CC20 | 24212102 | CD, 1000pF, ±10% |
| CC21 | 24473470 | CD, 47pF |
| CC22 | 24473470 | CD, 47pF |
| CC30 | 24475222 | CD, 0.022μF, ±30%, 16V |
| CC31 | 24232103 | CD, 0.01μF, +80%, -20% |
| CC32 | 24232103 | CD, 0.01μF, +80%, -20% |
| CF03 | 24567104 | PF, 0.1μF |
| CF04 | 24766101 | EL, 100μF, ±20%, 50V |
| CF05 | 24766101 | EL, 100μF, ±20%, 50V |
| CF06 | 24353220 | CD, 22pF, CH |
| CF07 | 24353220 | CD, 22pF, CH |
| CF08 | 24567104 | PF, 0.1μF |
| CF09 | 24567104 | PF, 0.1μF |
| CF10 | 24206100 | EL, 10μF, ±20%, 50V |
| CF11 | 24567104 | PF, 0.1μF |
| CF12 | 24232103 | CD, 0.01μF, +80%, -20% |
| CF14 | 24232103 | CD, 0.01μF, +80%, -20% |
| CF16 | 24567224 | PF, 0.22μF |
| CG01 | 24591124 | PF, 0.12μF |
| CG02 | 24567104 | PF, 0.1μF |
| CG03 | 24590823 | PF, 0.082μF |
| CG04 | 24669010 | EL, 1μF, ±20%, 50V |
| CG05 | 24666220 | EL, 22μF, ±20%, 16V |

| Location No. | Part No. | Description |
|---|---|---|
| CG07 | 24669010 | EL, 1μF, ±20%, 50V |
| CG08 | 24669010 | EL, 1μF, ±20%, 50V |
| CG09 | 24669010 | EL, 1μF, ±20%, 50V |
| CG12 | 24591273 | PF, 0.027μF |
| CG13 | 24232103 | CD, 0.01μF, +80%, -20% |
| CG14 | 24666101 | EL, 100μF, ±20%, 16V |
| CG15 | 24591822 | PF, 8200pF |
| CG16 | 24669010 | EL, 1μF, ±20%, 50V |
| CG17 | 24591273 | PF, 0.027μF |
| CG18 | 24591822 | PF, 8200pF |
| CG24 | 24669100 | EL, 10μF, ±20%, 50V |
| CG25 | 24212102 | CD, 1000pF, ±10% |
| CG26 | 24669100 | EL, 10μF, ±20%, 50V |
| CG27 | 24669229 | EL, 2.2μF, ±20%, 50V |
| CG28 | 24669229 | EL, 2.2μF, ±20%, 50V |
| CG29 | 24232103 | CD, 0.01μF, +80%, -20% |
| CG30 | 24232103 | CD, 0.01μF, +80%, -20% |
| CQ19 | 24590103 | PF, 0.01μF |
| CQ20 | 24567104 | PF, 0.1μF |
| CQ21 | 24794470 | EL, 47μF, ±20%, 16V |
| CQ22 | 24232103 | CD, 0.01μF, +80%, -20% |
| CQ23 | 24567104 | PF, 0.1μF |
| CQ24 | 24567104 | PF, 0.1μF |
| CQ25 | 24797100 | EL, 10μF, ±20%, 50V |
| CQ26 | 24567104 | PF, 0.1μF |
| CQ27 | 24567104 | PF, 0.1μF |
| CQ28 | 24797478 | EL, 0.47μF, ±20%, 50V |
| CQ29 | 24794101 | EL, 100μF, ±20%, 16V |
| CQ30 | 24232103 | CD, 0.01μF, +80%, -20% |
| CQ31 | 24797478 | EL, 0.47μF, ±20%, 50V |
| CQ32 | 24590103 | PF, 0.01μF |
| CQ33 | 24567104 | PF, 0.1μF |
| CQ34 | 24567104 | PF, 0.1μF |
| CQ35 | 24206478 | EL, 0.47μF, ±20%, 50V |
| CQ36 | 24206478 | EL, 0.47μF, ±20%, 50V |
| CQ37 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ38 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ39 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ45 | 24212102 | CD, 1000pF, ±10% |
| CQ46 | 24212102 | CD, 1000pF, ±10% |
| CQ60 | 24797229 | EL, 2.2μF, ±20%, 50V |
| CR12 | 24538104 | PF, 0.1μF |
| CR13 | 24538104 | PF, 0.1μF |
| CR14 | 24538104 | PF, 0.1μF |
| CR21 | 24232103 | CD, 0.01μF, +80%, -20% |
| CR22 | 24203470 | EL, 47μF, ±20%, 16V |
| CR23 | 24794101 | EL, 100μF, ±20%, 16V |
| CR24 | 24794101 | EL, 100μF, ±20%, 16V |
| CR25 | 24794101 | EL, 100μF, ±20%, 16V |
| CR26 | 24591223 | PF, 0.022μF |
| CR27 | 24591223 | PF, 0.022μF |
| CR28 | 24591223 | PF, 0.022μF |
| CR29 | 24794100 | EL, 10μF, ±20%, 16V |
| CR30 | 24591223 | PF, 0.022μF |
| CR31 | 24797229 | EL, 2.2μF, ±20%, 50V |
| CR32 | 24591223 | PF, 0.022μF |
| CR33 | 24232103 | CD, 0.01μF, +80%, -20% |
| CR35 | 24794331 | EL, 330μF, ±20%, 16V |
| CR36 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| CR40 | 24794470 | EL, 47μF, ±20%, 16V |
| CR41 | 24232103 | CD, 0.01μF, +80%, -20% |
| CR42 | 24203101 | EL, 100μF, ±20%, 16V |
| CR43 | 24794101 | EL, 100μF, ±20%, 16V |
| CR44 | 24794101 | EL, 100μF, ±20%, 16V |

| Location No. | Part No. | Description |
|---|---|---|
| CS01 | 24085944 | EL, 2.2μF, ±20%, 50V, Non-Polar |
| CS02 | 24085944 | EL, 2.2μF, ±20%, 50V, Non-Polar |
| CS03 | 24206229 | EL, 2.2μF, ±20%, 50V |
| CS04 | 24206229 | EL, 2.2μF, ±20%, 50V |
| CS05 | 24206229 | EL, 2.2μF, ±20%, 50V |
| CS06 | 24206229 | EL, 2.2μF, ±20%, 50V |
| CS07 | 24206229 | EL, 2.2μF, ±20%, 50V |
| CS08 | 24206229 | EL, 2.2μF, ±20%, 50V |
| CS09 | 24206010 | EL, 1μF, ±20%, 50V |
| CS12 | 24474102 | CD, 1000pF, ±10% |
| CS13 | 24474102 | CD, 1000pF, ±10% |
| CS14 | 24206100 | EL, 10μF, ±20%, 50V |
| CS15 | 24206100 | EL, 10μF, ±20%, 50V |
| CS17 | 24666100 | EL, 10μF, ±20%, 16V |
| CS18 | 24666100 | EL, 10μF, ±20%, 16V |
| CS19 | 24206478 | EL, 0.47μF, ±20%, 50V |
| CS22 | 24666100 | EL, 10μF, ±20%, 16V |
| CS23 | 24666100 | EL, 10μF, ±20%, 16V |
| CV01 | 24590103 | PF, 0.01μF |
| CV02 | 24085970 | EL, 10μF, ±20%, 16V, Non-Polar |
| CV03 | 24666100 | EL, 10μF, ±20%, 16V |
| CV04 | 24666100 | EL, 10μF, ±20%, 16V |
| CV05 | 24232103 | CD, 0.01μF, +80%, -20% |
| CV06 | 24666100 | EL, 10μF, ±20%, 16V |
| CV07 | 24232103 | CD, 0.01μF, +80%, -20% |
| CV08 | 24763102 | EL, 1000μF, ±20%, 16V |
| CV09 | 24666100 | EL, 10μF, ±20%, 16V |
| CV10 | 24085970 | EL, 10μF, ±20%, 16V, Non-Polar |
| CV11 | 24436331 | CD, 330pF |
| CV12 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| CV13 | 24232103 | CD, 0.01μF, +80%, -20% |
| CV14 | 24474102 | CD, 1000pF, ±10% |
| CV15 | 24474102 | CD, 1000pF, ±10% |
| CV16 | 24474102 | CD, 1000pF, ±10% |
| CV17 | 24474102 | CD, 1000pF, ±10% |
| CV18 | 24474102 | CD, 1000pF, ±10% |
| CV19 | 24474102 | CD, 1000pF, ±10% |
| CV20 | 24353330 | CD, 33pF, CH |
| CV23 | 24666101 | EL, 100μF, ±20%, 16V |
| CV24 | 24232103 | CD, 0.01μF, +80%, -20% |
| CV25 | 24763471 | EL, 470μF, ±20%, 16V |
| CV34 | 24474102 | CD, 1000pF, ±10% |
| CV35 | 24212102 | CD, 1000pF, ±10% |
| CV37 | 24474102 | CD, 1000pF, ±10% |
| CV39 | 24666101 | EL, 100μF, ±20%, 16V |
| CV40 | 24232103 | CD, 0.01μF, +80%, -20% |
| CV46 | 24212332 | CD, 3300pF, ±10% |
| CV47 | 24212332 | CD, 3300pF, ±10% |
| CV48 | 24212102 | CD, 1000pF, ±10% |
| CV65 | 24203101 | EL, 100μF, ±20%, 16V |
| CV66 | 24203101 | EL, 100μF, ±20%, 16V |
| CV67 | 24763471 | EL, 470μF, ±20%, 16V |
| CV68 | 24763471 | EL, 470μF, ±20%, 16V |
| CV80 | 24232103 | CD, 0.01μF, +80%, -20% |
| CX102 | 24085939 | EL, 4.7μF, ±20%, 25V, Non-Polar |
| CX103 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX104 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX105 | 24105330 | Chip, 33pF |
| CX106 | 24105680 | Chip, 68pF |

| Location No. | Part No. | Description |
|---|---|---|
| CX107 | 24105330 | Chip, 33pF |
| CX108 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX109 | 24085945 | EL, 2.2μF, ±20%, 50V, Non-Polar |
| CX110 | 24665471 | EL, 470μF, ±20%, 10V |
| CX111 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX112 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX113 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX114 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX115 | 24203470 | EL, 47μF, ±20%, 16V |
| CX116 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX117 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX118 | 24794101 | EL, 100μF, ±20%, 16V |
| CX119 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX120 | 24105470 | Chip, 47pF |
| CX125 | 24105101 | Chip, 100pF |
| CX126 | 24105271 | Chip, 270pF |
| CX127 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX128 | 24085971 | EL, 3.3μF, ±20%, 50V, Non-Polar |
| CX129 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX130 | 24794101 | EL, 100μF, ±20%, 16V |
| CX131 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX132 | 24794101 | EL, 100μF, ±20%, 16V |
| CX133 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX134 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX136 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX137 | 24665101 | EL, 100μF, ±20%, 10V |
| CX138 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX139 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX140 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX141 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX146 | 24105470 | Chip, 47pF |
| CX147 | 24105101 | Chip, 100pF |
| CX148 | 24105271 | Chip, 270pF |
| CX149 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX150 | 24085971 | EL, 3.3μF, ±20%, 50V, Non-Polar |
| CX151 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX152 | 24203470 | EL, 47μF, ±20%, 16V |
| CX153 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX154 | 24794101 | EL, 100μF, ±20%, 16V |
| CX155 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX156 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX157 | 24105150 | Chip, 15pF |
| CX158 | 24105330 | Chip, 33pF |
| CX201 | 24203470 | EL, 47μF, ±20%, 16V |
| CX202 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX203 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX204 | 24203220 | EL, 22μF, ±20%, 16V |
| CX205 | 24665101 | EL, 100μF, ±20%, 10V |
| CX206 | 24203101 | EL, 100μF, ±20%, 16V |
| CX207 | 24665101 | EL, 100μF, ±20%, 10V |
| CX208 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX209 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX210 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX211 | 24203100 | EL, 10μF, ±20%, 16V |
| CX212 | 24665101 | EL, 100μF, ±20%, 10V |
| CX220 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX221 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX222 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX223 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX224 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX226 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |

SPECIFIC INFORMATIONS

| Location No. | Part No. | Description |
|---|---|---|
| CX227 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX228 | 24092441 | Chip, 1μF, +80%, -20%, 16V |
| CX229 | 24092441 | Chip, 1μF, +80%, -20%, 16V |
| CX230 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX232 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX233 | 24762102 | EL, 1000μF, ±20%, 10V |
| CX234 | 24762102 | EL, 1000μF, ±20%, 10V |
| CX242 | 24105330 | Chip, 33pF |
| CX301 | 24665101 | EL, 100μF, ±20%, 10V |
| CX302 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX303 | 24665101 | EL, 100μF, ±20%, 10V |
| CX304 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX305 | 24092441 | Chip, 1μF, +80%, -20%, 16V |
| CX306 | 24105330 | Chip, 33pF |
| CX307 | 24105330 | Chip, 33pF |
| CX308 | 24105101 | Chip, 100pF |
| CX309 | 24105680 | Chip, 68pF |
| CX310 | 24105101 | Chip, 100pF |
| CX311 | 24105680 | Chip, 68pF |
| CX312 | 24105100 | Chip, 10pF, ±0.5pF |
| CX313 | 24105100 | Chip, 10pF, ±0.5pF |
| CX314 | 24105100 | Chip, 10pF, ±0.5pF |
| CX400 | 24108221 | Chip, 220pF |
| CX401 | 24108330 | Chip, 33pF |
| CX402 | 24108330 | Chip, 33pF |
| CX403 | 24108221 | Chip, 220pF |
| CX404 | 24108221 | Chip, 220pF |
| CX405 | 24108221 | Chip, 220pF |
| CX406 | 24108221 | Chip, 220pF |
| CX407 | 24108331 | Chip, 330pF |
| CX408 | 24108221 | Chip, 220pF |
| CX409 | 24105120 | Chip, 12pF |
| CX410 | 24105220 | Chip, 22pF |
| CX411 | 24105220 | Chip, 22pF |
| CX412 | 24105220 | Chip, 22pF |
| CX413 | 24105220 | Chip, 22pF |
| CX414 | 24105220 | Chip, 22pF |
| CX415 | 24108221 | Chip, 220pF |
| CX801 | 24763471 | EL, 470μF, ±20%, 16V |
| CX802 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX803 | 24665471 | EL, 470μF, ±20%, 10V |
| CX804 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX805 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CX806 | 24092399 | CD, 0.1μF, +80%, -20%, 16V |
| CZ08 | 24203100 | EL, 10μF, ±20%, 16V |
| CZ09 | 24436220 | CD, 22pF |
| CZ10 | 24473180 | CD, 18pF |
| CZ11 | 24473100 | CD, 10pF |
| CZ12 | 24232103 | CD, 0.01μF, +80%, -20% |
| CZ13 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| CZ14 | 24617816 | EL, 10μF, ±20%, 50V |
| CZ15 | 24232103 | CD, 0.01μF, +80%, -20% |
| CZ16 | 24206478 | EL, 0.47μF, ±20%, 50V |
| CZ17 | 24232103 | CD, 0.01μF, +80%, -20% |
| CZ19 | 24436181 | CD, 180pF |
| CZ20 | 24590103 | PF, 0.01μF |
| CZ21 | 24436390 | CD, 39pF |
| CZ22 | 24617816 | EL, 10μF, ±20%, 50V |
| CZ23 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| CZ24 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| CZ25 | 24203101 | EL, 100μF, ±20%, 16V |
| CZ26 | 24232103 | CD, 0.01μF, +80%, -20% |
| CZ28 | 24232103 | CD, 0.01μF, +80%, -20% |
| CZ29 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |

| Location No. | Part No. | Description |
|---|---|---|
| CZ30 | 24617816 | EL, 10μF, ±20%, 50V |
| CZ32 | 24436120 | CD, 12pF |
| CZ33 | 24436120 | CD, 12pF |
| CZ34 | 24473120 | CD, 12pF |
| CZ35 | 24473120 | CD, 12pF |
| CZ37 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| CZ38 | 24092398 | CD, 0.1μF, +80%, -20%, 25V |
| CZ45 | 24436100 | CD, 10pF |
| CZ48 | 24203470 | EL, 47μF, ±20%, 16V |

## RESISTORS

| Location No. | Part No. | Description |
|---|---|---|
| R101 | 24382223 | OMF, 22k ohm, 1W |
| R201 | 24366681 | CF, 680 ohm |
| R202 | 24366821 | CF, 820 ohm |
| R203 | 24366100 | CF, 10 ohm |
| R204 | 24366104 | CF, 100k ohm |
| R205 | 24366101 | CF, 100 ohm |
| R206 | 24366222 | CF, 2200 ohm |
| R207 | 24366101 | CF, 100 ohm |
| R208 | 24366101 | CF, 100 ohm |
| R208 | 24366103 | CF, 10k ohm |
| R209 | 24366101 | CF, 100 ohm |
| R209 | 24366103 | CF, 10k ohm |
| R211 | 24366563 | CF, 56k ohm |
| R215 | 24366102 | CF, 1k ohm |
| R216 | 24366103 | CF, 10k ohm |
| R217 | 24366101 | CF, 100 ohm |
| R217 | 24366332 | CF, 3300 ohm |
| R218 | 24366513 | CF, 51k ohm |
| R220 | 24366102 | CF, 1k ohm |
| R221 | 24366102 | CF, 1k ohm |
| R223 | 24366102 | CF, 1k ohm |
| R226 | 24366101 | CF, 100 ohm |
| R227 | 24366623 | CF, 62k ohm |
| R229 | 24366472 | CF, 4700 ohm |
| R232 | 24366103 | CF, 10k ohm |
| R233 | 24366104 | CF, 100k ohm |
| R234 | 24366100 | CF, 10 ohm |
| R235 | 24366472 | CF, 4700 ohm |
| R236 | 24366102 | CF, 1k ohm |
| R237 | 24366103 | CF, 10k ohm |
| R299 | 24366103 | CF, 10k ohm |
| R303 | 24321109 | MF, 1 ohm, 1/2W |
| R304 | 24366153 | CF, 15k ohm |
| R305 | 24322129 | MF, 1.2 ohm, 1W |
| R306 | 24366222 | CF, 2200 ohm |
| R307 | 24366621 | CF, 620 ohm |
| R308 | 24366472 | CF, 4700 ohm |
| R309 | 24366333 | CF, 33k ohm |
| R310 | 24366102 | CF, 1k ohm |
| R312 | 24366163 | CF, 16k ohm |
| R313 | 24366303 | CF, 30k ohm |
| R314 | 24366105 | CF, 1M ohm |
| R315 | 24366684 | CF, 680k ohm |
| R316 | 24366154 | CF, 150k ohm |
| R317 | 24366472 | CF, 4700 ohm |
| R318 | 24366471 | CF, 470 ohm |
| R319 | 24366471 | CF, 470 ohm |
| R320 | 24366101 | CF, 100 ohm |
| R321 | 24366103 | CF, 10k ohm |
| R322 | 24366102 | CF, 1k ohm |
| R323 | 24366103 | CF, 10k ohm |
| R324 | 24366122 | CF, 1200 ohm |
| R325 | 24366103 | CF, 10k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| R325 | 24366103 | CF, 10k ohm |
| R327 | 24339339 | MF, 3.3 ohm, 2W |
| R328 | 24366102 | CF, 1k ohm |
| R329 | 24366103 | CF, 10k ohm |
| R330 | 24366113 | CF, 11k ohm |
| R331 | 24366104 | CF, 100k ohm |
| R336 | 24383271 | OMF, 270 ohm, 2W |
| R341 | 24366822 | CF, 8200 ohm |
| R343 | 24366183 | CF, 18k ohm |
| R344 | 24383821 | OMF, 820 ohm, 2W |
| R360 | 24366103 | CF, 10k ohm |
| R370 | 24322159 | MF, 1.5 ohm, 1W |
| R371 | 24366562 | CF, 5600 ohm |
| R372 | 24366392 | CF, 3900 ohm |
| R373 | 24366182 | CF, 1800 ohm |
| R374 | 24366153 | CF, 15k ohm |
| R399 | 24366684 | CF, 680k ohm |
| R401 | 24366391 | CF, 390 ohm |
| R402 | 24366103 | CF, 10k ohm |
| R403 | 24366242 | CF, 2400 ohm |
| R405 | 24553682 | OMF, 6800 ohm, 1W |
| R407 | 24366103 | CF, 10k ohm |
| R411 | 24366560 | CF, 56 ohm |
| R414 | 24383220 | OMF, 22 ohm, 2W |
| R415 | 24553561 | OMF, 560 ohm, 1W |
| R416 | 24381563 | OMF, 56k ohm, 1/2W |
| R417 | 24510101 | Cement, 100 ohm, 5W |
| R424 | 24366152 | CF, 1500 ohm |
| R425 | 24366182 | CF, 1800 ohm |
| R426 | 24366751 | CF, 750 ohm |
| R427 | 24366392 | CF, 3900 ohm |
| R428 | 24366561 | CF, 560 ohm |
| R429 | 24552560 | OMF, 56 ohm, 1/2W |
| R441 | 24383561 | OMF, 560 ohm, 2W |
| R460 | 24552332 | OMF, 3300 ohm, 1/2W |
| R461 | 24552152 | OMF, 1500 ohm, 1/2W |
| R463 | 24323229 | MF, 2.2 ohm, 2W |
| R464 | 24366273 | CF, 27k ohm |
| R465 | 24366114 | CF, 110k ohm |
| R466 | 24366562 | CF, 5600 ohm |
| R469 | 24531150 | FR, 15 ohm, 1/2W |
| R470 | 24339568 | MF, 0.56 ohm, 2W |
| R471 | 24531271 | FR, 270 ohm, 1/2W |
| R473 | 24366473 | CF, 47k ohm |
| R474 | 24366473 | CF, 47k ohm |
| R478 | 24376333 | CF, 33k ohm, 1/2W |
| R479 | 24531680 | FR, 68 ohm, 1/2W |
| R480 | 24552222 | OMF, 2200 ohm, 1/2W |
| R481 | 24366223 | CF, 22k ohm |
| R482 | 24366103 | CF, 10k ohm |
| R487 | 24366474 | CF, 470k ohm |
| R488 | 24366154 | CF, 150k ohm |
| R490 | 24366101 | CF, 100 ohm |
| R491 | 24366101 | CF, 100 ohm |
| R492 | 24366272 | CF, 2700 ohm |
| R499 | 24366182 | CF, 1800 ohm |
| R501 | 24366223 | CF, 22k ohm |
| R502 | 24366101 | CF, 100 ohm |
| R503 | 24366101 | CF, 100 ohm |
| R505 | 24366102 | CF, 1k ohm |
| R506 | 24366103 | CF, 10k ohm |
| R508 | 24366102 | CF, 1k ohm |
| R509 | 24366102 | CF, 1k ohm |
| R510 | 24366102 | CF, 1k ohm |
| R511 | 24366101 | CF, 100 ohm |
| R512 | 24366101 | CF, 100 ohm |
| R513 | 24366472 | CF, 4700 ohm |
| R514 | 24366472 | CF, 4700 ohm |
| R518 | 24366472 | CF, 4700 ohm |
| R519 | 24366101 | CF, 100 ohm |
| R612 | 24366103 | CF, 10k ohm |
| R630 | 24366512 | CF, 5100 ohm |
| R631 | 24366512 | CF, 5100 ohm |
| R661 | 24552221 | OMF, 220 ohm, 1/2W |
| R662 | 24552221 | OMF, 220 ohm, 1/2W |
| R670 | 24366272 | CF, 2700 ohm |
| R671 | 24366392 | CF, 3900 ohm |
| R672 | 24366272 | CF, 2700 ohm |
| R673 | 24366392 | CF, 3900 ohm |
| R676 | 24366223 | CF, 22k ohm |
| R676 | 24366223 | CF, 22k ohm |
| R677 | 24366223 | CF, 22k ohm |
| R677 | 24366223 | CF, 22k ohm |
| R678 | 24366223 | CF, 22k ohm |
| R679 | 24366223 | CF, 22k ohm |
| R680 | 24366223 | CF, 22k ohm |
| R680 | 24366473 | CF, 47k ohm |
| R681 | 24366223 | CF, 22k ohm |
| R684 | 24366229 | CF, 2.2 ohm |
| R685 | 24366229 | CF, 2.2 ohm |
| R686 | 24366229 | CF, 2.2 ohm |
| R688 | 24366222 | CF, 2200 ohm |
| R690 | 24366681 | CF, 680 ohm |
| R691 | 24366681 | CF, 680 ohm |
| R692 | 24366681 | CF, 680 ohm |
| R693 | 24366681 | CF, 680 ohm |
| R702 | 24552221 | OMF, 220 ohm, 1/2W |
| R712 | 24366101 | CF, 100 ohm |
| R715 | 24366393 | CF, 39k ohm |
| R716 | 24366273 | CF, 27k ohm |
| R717 | 24366333 | CF, 33k ohm |
| R718 | 24366102 | CF, 1k ohm |
| R722 | 24552471 | OMF, 470 ohm, 1/2W |
| R723 | 24366151 | CF, 150 ohm |
| R724 | 24366121 | CF, 120 ohm |
| R725 | 24366182 | CF, 1800 ohm |
| R730 | 24552100 | OMF, 10 ohm, 1/2W |
| R731 | 24553331 | OMF, 330 ohm, 1W |
| R732 | 24366220 | CF, 22 ohm |
| R733 | 24366683 | CF, 68k ohm |
| R734 | 24366220 | CF, 22 ohm |
| R735 | 24366683 | CF, 68k ohm |
| R736 | 24366560 | CF, 56 ohm |
| R737 | 24366152 | CF, 1500 ohm |
| R738 | 24366123 | CF, 12k ohm |
| R739 | 24366152 | CF, 1500 ohm |
| R740 | 24366560 | CF, 56 ohm |
| R741 | 24366279 | CF, 2.7 ohm |
| R742 | 24366279 | CF, 2.7 ohm |
| R743 | 24554101 | OMF, 100 ohm, 2W |
| R744 | 24366122 | CF, 1200 ohm |
| R745 | 24366122 | CF, 1200 ohm |
| R801 | 24009954 | Metal-Glazed Resistor, 2.2M ohm, 1/2W |
| R802 | 24321568 | MF, 0.56 ohm, 1/2W |
| R803 | 24382683 | OMF, 68k ohm, 1W |
| R805 | 24552101 | OMF, 100 ohm, 1/2W |
| R806 | 24552392 | OMF, 3900 ohm, 1/2W |

| Location No. | Part No. | Description |
|---|---|---|
| R808 | 24019340 | PTC Thermistor,<br>18 ohm, 290V |
| R810 | 24007492 | Cement, 2.2 ohm, 20W |
| R811 | 24568271 | Cement, 270 ohm, 7W |
| R814 | 24366122 | CF, 1200 ohm |
| R815 | 24552102 | OMF, 1k ohm, 1/2W |
| R816 | 24323759 | MF, 7.5 ohm, 2W |
| R818 | 24322228 | MF, 0.22 ohm, 1W |
| R819 | 24321279 | MF, 2.7 ohm, 1/2W |
| R821 | 24366101 | CF, 100 ohm |
| R822 | 24552103 | OMF, 10k ohm, 1/2W |
| R823 | 24366272 | CF, 2700 ohm |
| R824 | 24569101 | Cement, 100 ohm, 10W |
| R825 | 24569100 | Cement, 10 ohm, 10W |
| R827 | 24366681 | CF, 680 ohm |
| R828 | 24366821 | CF, 820 ohm |
| R829 | 24322228 | MF, 0.22 ohm, 1W |
| R830 | 24366471 | CF, 470 ohm |
| R831 | 24366471 | CF, 470 ohm |
| R832 | 24366472 | CF, 4700 ohm |
| R833 | 24366222 | CF, 2200 ohm |
| R841 | 24531120 | FR, 12 ohm, 1/2W |
| R842 | 24552392 | OMF, 3900 ohm, 1/2W |
| R846 | 24366561 | CF, 560 ohm |
| R847 | 24366472 | CF, 4700 ohm |
| R890 | 24553333 | OMF, 33k ohm, 1W |
| ⚠R899 | 24005007 | Metal-Glazed Resistor,<br>8.2M ohm, 1W |
| R901 | 24376821 | CF, 820 ohm, 1/2W |
| R902 | 24376821 | CF, 820 ohm, 1/2W |
| R903 | 24376821 | CF, 820 ohm, 1/2W |
| R904 | 24366472 | CF, 4700 ohm |
| R905 | 24366150 | CF, 15 ohm |
| R906 | 24366102 | CF, 1k ohm |
| R907 | 24366102 | CF, 1k ohm |
| R908 | 24366102 | CF, 1k ohm |
| R909 | 24366222 | CF, 2200 ohm |
| R914 | 24366101 | CF, 100 ohm |
| R915 | 24366560 | CF, 56 ohm |
| R916 | 24366330 | CF, 33 ohm |
| R917 | 24366181 | CF, 180 ohm |
| R918 | 24366100 | CF, 10 ohm |
| R920 | 24000818 | FR, 5.6 ohm, 1W |
| R921 | 24366101 | CF, 100 ohm |
| R922 | 24366101 | CF, 100 ohm |
| R924 | 24366100 | CF, 10 ohm |
| R925 | 24366181 | CF, 180 ohm |
| R928 | 24366101 | CF, 100 ohm |
| R929 | 24366101 | CF, 100 ohm |
| R930 | 24366100 | CF, 10 ohm |
| R932 | 24366332 | CF, 3300 ohm |
| R933 | 24366750 | CF, 75 ohm |
| R934 | 24366391 | CF, 390 ohm |
| R935 | 24366821 | CF, 820 ohm |
| R936 | 24366750 | CF, 75 ohm |
| R937 | 24366181 | CF, 180 ohm |
| R939 | 24366101 | CF, 100 ohm |
| R942 | 24366392 | CF, 3900 ohm |
| R943 | 24366392 | CF, 3900 ohm |
| R944 | 24366392 | CF, 3900 ohm |
| R945 | 24366330 | CF, 33 ohm |
| R946 | 24366330 | CF, 33 ohm |
| R960 | 24383153 | OMF, 15k ohm, 2W |
| R961 | 24383153 | OMF, 15k ohm, 2W |
| R962 | 24383153 | OMF, 15k ohm, 2W |
| R963 | 24383153 | OMF, 15k ohm, 2W |
| R964 | 24383153 | OMF, 15k ohm, 2W |
| R965 | 24383153 | OMF, 15k ohm, 2W |
| R966 | 24383153 | OMF, 15k ohm, 2W |
| R967 | 24383153 | OMF, 15k ohm, 2W |
| R968 | 24383153 | OMF, 15k ohm, 2W |
| R969 | 24366101 | CF, 100 ohm |
| R970 | 24366101 | CF, 100 ohm |
| R971 | 24366101 | CF, 100 ohm |
| R977 | 24366681 | CF, 680 ohm |
| R980 | 24366471 | CF, 470 ohm |
| R981 | 24366821 | CF, 820 ohm |
| R982 | 24366103 | CF, 10k ohm |
| R983 | 24366222 | CF, 2200 ohm |
| R984 | 24366152 | CF, 1500 ohm |
| R985 | 24366471 | CF, 470 ohm |
| R986 | 24366681 | CF, 680 ohm |
| R987 | 24366681 | CF, 680 ohm |
| R988 | 24366472 | CF, 4700 ohm |
| R989 | 24366332 | CF, 3300 ohm |
| R990 | 24366222 | CF, 2200 ohm |
| R991 | 24366681 | CF, 680 ohm |
| R992 | 24366150 | CF, 15 ohm |
| R4034 | 24366332 | CF, 3300 ohm |
| R4301 | 24366222 | CF, 2200 ohm |
| R4302 | 24366103 | CF, 10k ohm |
| R4303 | 24019090 | MF, 300k ohm, 1/6W |
| R4305 | 24366471 | CF, 470 ohm |
| R4306 | 24366472 | CF, 4700 ohm |
| R4350 | 24066873 | VR, 100k ohm, 0.3W |
| R4401 | 24366103 | CF, 10k ohm |
| R4402 | 24366222 | CF, 2200 ohm |
| R4403 | 24000639 | MF, 22k ohm, 1/4W |
| R4404 | 24000364 | MF, 1800 ohm, 1/4W |
| R4405 | 24000247 | MF, 39k ohm, 1/4W |
| R4406 | 24000220 | MF, 390 ohm, 1/4W |
| R4408 | 24000637 | MF, 15k ohm, 1/4W |
| R4409 | 24000361 | MF, 1.3k ohm, 1/4W |
| R4410 | 24552470 | OMF, 47 ohm, 1/2W |
| R4411 | 24366472 | CF, 4700 ohm |
| R4412 | 24366103 | CF, 10k ohm |
| R4413 | 24366132 | CF, 1300 ohm |
| R4420 | 24000639 | MF, 22k ohm, 1/4W |
| R4421 | 24366103 | CF, 10k ohm |
| R4422 | 24366473 | CF, 47k ohm |
| R4423 | 24366223 | CF, 22k ohm |
| R4424 | 24366103 | CF, 10k ohm |
| R4450 | 24066878 | VR, 2k ohm, 0.3W |
| RA04 | 24366102 | CF, 1k ohm |
| RA05 | 24366102 | CF, 1k ohm |
| RA07 | 24366102 | CF, 1k ohm |
| RA08 | 24366102 | CF, 1k ohm |
| RA09 | 24366102 | CF, 1k ohm |
| RA10 | 24366102 | CF, 1k ohm |
| RA11 | 24366102 | CF, 1k ohm |
| RA12 | 24366473 | CF, 47k ohm |
| RA13 | 24366153 | CF, 15k ohm |
| RA16 | 24366102 | CF, 1k ohm |
| RA17 | 24366102 | CF, 1k ohm |
| RA18 | 24366102 | CF, 1k ohm |
| RA27 | 24366102 | CF, 1k ohm |
| RA33 | 24366102 | CF, 1k ohm |
| RA35 | 24366102 | CF, 1k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RA36 | 24366472 | CF, 4700 ohm |
| RA37 | 24366101 | CF, 100 ohm |
| RA38 | 24366101 | CF, 100 ohm |
| RA49 | 24366470 | CF, 47 ohm |
| RA61 | 24366103 | CF, 10k ohm |
| RA62 | 24366103 | CF, 10k ohm |
| RA63 | 24366103 | CF, 10k ohm |
| RA64 | 24366103 | CF, 10k ohm |
| RA67 | 24366472 | CF, 4700 ohm |
| RA68 | 24366472 | CF, 4700 ohm |
| RA70 | 24366333 | CF, 33k ohm |
| RA71 | 24366683 | CF, 68k ohm |
| RA72 | 24366223 | CF, 22k ohm |
| RA73 | 24366103 | CF, 10k ohm |
| RA74 | 24366103 | CF, 10k ohm |
| RA75 | 24366333 | CF, 33k ohm |
| RA76 | 24366103 | CF, 10k ohm |
| RA77 | 24366472 | CF, 4700 ohm |
| RA78 | 24366472 | CF, 4700 ohm |
| RA79 | 24366103 | CF, 10k ohm |
| RB01 | 24366271 | CF, 270 ohm |
| RB02 | 24366271 | CF, 270 ohm |
| RB09 | 24366470 | CF, 47 ohm |
| RB10 | 24366101 | CF, 100 ohm |
| RB11 | 24366103 | CF, 10k ohm |
| RB30 | 24366103 | CF, 10k ohm |
| RB40 | 24366103 | CF, 10k ohm |
| RB41 | 24366182 | CF, 1800 ohm |
| RB42 | 24366102 | CF, 1k ohm |
| RB43 | 24366103 | CF, 10k ohm |
| RB44 | 24366103 | CF, 10k ohm |
| RB45 | 24366101 | CF, 100 ohm |
| RF01 | 24366222 | CF, 2200 ohm |
| RF03 | 24366472 | CF, 4700 ohm |
| RF04 | 24366472 | CF, 4700 ohm |
| RF06 | 24366102 | CF, 1k ohm |
| RF08 | 24366100 | CF, 10 ohm |
| RF09 | 24366100 | CF, 10 ohm |
| RF10 | 24366100 | CF, 10 ohm |
| RF11 | 24366103 | CF, 10k ohm |
| RF12 | 24366101 | CF, 100 ohm |
| RF13 | 24366101 | CF, 100 ohm |
| RF14 | 24366101 | CF, 100 ohm |
| RF15 | 24366103 | CF, 10k ohm |
| RF16 | 24366471 | CF, 470 ohm |
| RF20 | 24366472 | CF, 4700 ohm |
| RF21 | 24366102 | CF, 1k ohm |
| RF22 | 24366102 | CF, 1k ohm |
| RF26 | 24366102 | CF, 1k ohm |
| RG01 | 24366223 | CF, 22k ohm |
| RG02 | 24366223 | CF, 22k ohm |
| RG03 | 24366101 | CF, 100 ohm |
| RG04 | 24366101 | CF, 100 ohm |
| RG05 | 24366101 | CF, 100 ohm |
| RG07 | 24366101 | CF, 100 ohm |
| RG08 | 24366101 | CF, 100 ohm |
| RG09 | 24366103 | CF, 10k ohm |
| RG10 | 24366103 | CF, 10k ohm |
| RG11 | 24366103 | CF, 10k ohm |
| RG12 | 24366103 | CF, 10k ohm |
| RQ07 | 24366103 | CF, 10k ohm |
| RQ08 | 24366102 | CF, 1k ohm |
| RQ09 | 24366102 | CF, 1k ohm |
| RQ10 | 24366102 | CF, 1k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RQ11 | 24366561 | CF, 560 ohm |
| RQ12 | 24366561 | CF, 560 ohm |
| RQ60 | 24366101 | CF, 100 ohm |
| RQ61 | 24366103 | CF, 10k ohm |
| RQ62 | 24366103 | CF, 10k ohm |
| RQ63 | 24366103 | CF, 10k ohm |
| RQ64 | 24366104 | CF, 100k ohm |
| RR12 | 24366151 | CF, 150 ohm |
| RR13 | 24366151 | CF, 150 ohm |
| RR14 | 24366151 | CF, 150 ohm |
| RR21 | 24366102 | CF, 1k ohm |
| RR22 | 24366102 | CF, 1k ohm |
| RR23 | 24366562 | CF, 5600 ohm |
| RR24 | 24366332 | CF, 3300 ohm |
| RR25 | 24366362 | CF, 3600 ohm |
| RR27 | 24366202 | CF, 2k ohm |
| RR29 | 24366101 | CF, 100 ohm |
| RR30 | 24366101 | CF, 100 ohm |
| RR33 | 24366101 | CF, 100 ohm |
| RR34 | 24366102 | CF, 1k ohm |
| RR35 | 24366102 | CF, 1k ohm |
| RR36 | 24366103 | CF, 10k ohm |
| RR38 | 24366222 | CF, 2200 ohm |
| RR39 | 24366222 | CF, 2200 ohm |
| RR40 | 24366471 | CF, 470 ohm |
| RR41 | 24366473 | CF, 47k ohm |
| RR42 | 24366101 | CF, 100 ohm |
| RR43 | 24366101 | CF, 100 ohm |
| RR44 | 24366101 | CF, 100 ohm |
| RR50 | 24366101 | CF, 100 ohm |
| RR51 | 24366101 | CF, 100 ohm |
| RR52 | 24366101 | CF, 100 ohm |
| RR60 | 24366472 | CF, 4700 ohm |
| RR61 | 24366392 | CF, 3900 ohm |
| RR62 | 24366242 | CF, 2400 ohm |
| RR63 | 24366102 | CF, 1k ohm |
| RR64 | 24366132 | CF, 1300 ohm |
| RR65 | 24366102 | CF, 1k ohm |
| RR66 | 24366101 | CF, 100 ohm |
| RR67 | 24366101 | CF, 100 ohm |
| RS01 | 24366681 | CF, 680 ohm |
| RS02 | 24366681 | CF, 680 ohm |
| RS03 | 24366101 | CF, 100 ohm |
| RS04 | 24366101 | CF, 100 ohm |
| RS05 | 24366472 | CF, 4700 ohm |
| RS06 | 24366472 | CF, 4700 ohm |
| RS07 | 24366472 | CF, 4700 ohm |
| RS08 | 24366472 | CF, 4700 ohm |
| RS09 | 24366472 | CF, 4700 ohm |
| RS10 | 24366472 | CF, 4700 ohm |
| RS11 | 24366101 | CF, 100 ohm |
| RS13 | 24366101 | CF, 100 ohm |
| RS14 | 24366101 | CF, 100 ohm |
| RS15 | 24366104 | CF, 100k ohm |
| RS16 | 24366104 | CF, 100k ohm |
| RS17 | 24366223 | CF, 22k ohm |
| RS18 | 24366223 | CF, 22k ohm |
| RS19 | 24366102 | CF, 1k ohm |
| RS20 | 24366102 | CF, 1k ohm |
| RS21 | 24366222 | CF, 2200 ohm |
| RS22 | 24366222 | CF, 2200 ohm |
| RS23 | 24366101 | CF, 100 ohm |
| RS24 | 24366101 | CF, 100 ohm |
| RS27 | 24366104 | CF, 100k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RS28 | 24366104 | CF, 100k ohm |
| RS29 | 24366223 | CF, 22k ohm |
| RS30 | 24366223 | CF, 22k ohm |
| RS31 | 24366103 | CF, 10k ohm |
| RS32 | 24366104 | CF, 100k ohm |
| RS35 | 24366223 | CF, 22k ohm |
| RS36 | 24366223 | CF, 22k ohm |
| RS37 | 24366104 | CF, 100k ohm |
| RS38 | 24366104 | CF, 100k ohm |
| RS43 | 24366681 | CF, 680 ohm |
| RS44 | 24366681 | CF, 680 ohm |
| RS45 | 24366681 | CF, 680 ohm |
| RS46 | 24366681 | CF, 680 ohm |
| RV01 | 24366101 | CF, 100 ohm |
| RV02 | 24366101 | CF, 100 ohm |
| RV03 | 24366101 | CF, 100 ohm |
| RV04 | 24366101 | CF, 100 ohm |
| RV05 | 24366101 | CF, 100 ohm |
| RV06 | 24366101 | CF, 100 ohm |
| RV07 | 24366162 | CF, 1600 ohm |
| RV08 | 24366162 | CF, 1600 ohm |
| RV09 | 24366101 | CF, 100 ohm |
| RV10 | 24366101 | CF, 100 ohm |
| RV12 | 24366681 | CF, 680 ohm |
| RV13 | 24366681 | CF, 680 ohm |
| RV16 | 24366471 | CF, 470 ohm |
| RV18 | 24366123 | CF, 12k ohm |
| RV19 | 24366101 | CF, 100 ohm |
| RV22 | 24366102 | CF, 1k ohm |
| RV23 | 24552101 | OMF, 100 ohm, 1/2W |
| RV25 | 24366101 | CF, 100 ohm |
| RV26 | 24366181 | CF, 180 ohm |
| RV27 | 24366750 | CF, 75 ohm |
| RV28 | 24366683 | CF, 68k ohm |
| RV29 | 24366273 | CF, 27k ohm |
| RV30 | 24366750 | CF, 75 ohm |
| RV32 | 24366750 | CF, 75 ohm |
| RV33 | 24366123 | CF, 12k ohm |
| RV34 | 24366123 | CF, 12k ohm |
| RV35 | 24366103 | CF, 10k ohm |
| RV36 | 24366101 | CF, 100 ohm |
| RV38 | 24366750 | CF, 75 ohm |
| RV40 | 24366471 | CF, 470 ohm |
| RV60 | 24366471 | CF, 470 ohm |
| RV61 | 24552101 | OMF, 100 ohm, 1/2W |
| RV62 | 24366101 | CF, 100 ohm |
| RV63 | 24552151 | OMF, 150 ohm, 1/2W |
| RV64 | 24366750 | CF, 75 ohm |
| RV65 | 24552101 | OMF, 100 ohm, 1/2W |
| RV66 | 24366101 | CF, 100 ohm |
| RV67 | 24552151 | OMF, 150 ohm, 1/2W |
| RV68 | 24366750 | CF, 75 ohm |
| RV70 | 24366101 | CF, 100 ohm |
| RV71 | 24366472 | CF, 4700 ohm |
| RV78 | 24366221 | CF, 220 ohm |
| RV79 | 24366680 | CF, 68 ohm |
| RV80 | 24366102 | CF, 1k ohm |
| RV81 | 24366472 | CF, 4700 ohm |
| RV81 | 24366750 | CF, 75 ohm |
| RV82 | 24366153 | CF, 15k ohm |
| RV83 | 24366103 | CF, 10k ohm |
| RV85 | 24366750 | CF, 75 ohm |
| RV86 | 24366750 | CF, 75 ohm |
| RV87 | 24366750 | CF, 75 ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RV89 | 24366750 | CF, 75 ohm |
| RV90 | 24366681 | CF, 680 ohm |
| RV91 | 24366681 | CF, 680 ohm |
| RV92 | 24366100 | CF, 10 ohm |
| RV93 | 24366104 | CF, 100k ohm |
| RV94 | 24366103 | CF, 10k ohm |
| RV95 | 24366222 | CF, 2200 ohm |
| RV96 | 24366391 | CF, 390 ohm |
| RV97 | 24366101 | CF, 100 ohm |
| RV98 | 24366750 | CF, 75 ohm |
| RX103 | 24871471 | Chip, 470 ohm, 1/8W |
| RX104 | 24011105 | Chip, 1M ohm, 1/20W |
| RX105 | 24011271 | Chip, 270 ohm, 1/20W |
| RX106 | 24011102 | Chip, 1k ohm, 1/20W |
| RX108 | 24011331 | Chip, 330 ohm, 1/20W |
| RX109 | 24871221 | Chip, 220 ohm, 1/8W |
| RX110 | 24011680 | Chip, 68 ohm, 1/20W |
| RX111 | 24011561 | Chip, 560 ohm, 1/20W |
| RX112 | 24871221 | Chip, 220 ohm, 1/8W |
| RX120 | 24011470 | Chip, 47 ohm, 1/20W |
| RX121 | 24011152 | Chip, 1.5k ohm, 1/20W |
| RX123 | 24011331 | Chip, 330 ohm, 1/20W |
| RX125 | 24011102 | Chip, 1k ohm, 1/20W |
| RX126 | 24871471 | Chip, 470 ohm, 1/8W |
| RX127 | 24011471 | Chip, 470 ohm, 1/20W |
| RX128 | 24871471 | Chip, 470 ohm, 1/8W |
| RX136 | 24011470 | Chip, 47 ohm, 1/20W |
| RX137 | 24011152 | Chip, 1.5k ohm, 1/20W |
| RX140 | 24011102 | Chip, 1k ohm, 1/20W |
| RX141 | 24871471 | Chip, 470 ohm, 1/8W |
| RX142 | 24011120 | Chip, 12 ohm, 1/20W |
| RX143 | 24011561 | Chip, 560 ohm, 1/20W |
| RX144 | 24871221 | Chip, 220 ohm, 1/8W |
| RX145 | 24011331 | Chip, 330 ohm, 1/20W |
| RX146 | 24011470 | Chip, 47 ohm, 1/20W |
| RX201 | 24011103 | Chip, 10k ohm, 1/20W |
| RX202 | 24011681 | Chip, 680 ohm, 1/20W |
| RX203 | 24011151 | Chip, 150 ohm, 1/20W |
| RX204 | 24011472 | Chip, 4.7k ohm, 1/20W |
| RX205 | 24011332 | Chip, 3.3k ohm, 1/20W |
| RX206 | 24011331 | Chip, 330 ohm, 1/20W |
| RX207 | 24011102 | Chip, 1k ohm, 1/20W |
| RX208 | 24011332 | Chip, 3.3k ohm, 1/20W |
| RX209 | 24011681 | Chip, 680 ohm, 1/20W |
| RX223 | 24011220 | Chip, 22 ohm, 1/20W |
| RX225 | 24011220 | Chip, 22 ohm, 1/20W |
| RX230 | 24011220 | Chip, 22 ohm, 1/20W |
| RX231 | 24011220 | Chip, 22 ohm, 1/20W |
| RX301 | 24011151 | Chip, 150 ohm, 1/20W |
| RX302 | 24011102 | Chip, 1k ohm, 1/20W |
| RX303 | 24011220 | Chip, 22 ohm, 1/20W |
| RX304 | 24871331 | Chip, 330 ohm, 1/8W |
| RX305 | 24011221 | Chip, 220 ohm, 1/20W |
| RX306 | 24011821 | Chip, 820 ohm, 1/20W |
| RX307 | 24011220 | Chip, 22 ohm, 1/20W |
| RX308 | 24871331 | Chip, 330 ohm, 1/8W |
| RX309 | 24011221 | Chip, 220 ohm, 1/20W |
| RX310 | 24011821 | Chip, 820 ohm, 1/20W |
| RX311 | 24011220 | Chip, 22 ohm, 1/20W |
| RX312 | 24871331 | Chip, 330 ohm, 1/8W |
| RX313 | 24871331 | Chip, 330 ohm, 1/8W |
| RX314 | 24871331 | Chip, 330 ohm, 1/8W |
| RX315 | 24871471 | Chip, 470 ohm, 1/8W |
| RX400 | 24011102 | Chip, 1k ohm, 1/20W |

| Location No. | Part No. | Description |
|---|---|---|
| RX401 | 24011471 | Chip, 470 ohm, 1/20W |
| RX402 | 24011471 | Chip, 470 ohm, 1/20W |
| RX403 | 24011471 | Chip, 470 ohm, 1/20W |
| RX404 | 24011102 | Chip, 1k ohm, 1/20W |
| RX405 | 24011221 | Chip, 220 ohm, 1/20W |
| RX406 | 24011221 | Chip, 220 ohm, 1/20W |
| RX407 | 24011221 | Chip, 220 ohm, 1/20W |
| RX408 | 24011221 | Chip, 220 ohm, 1/20W |
| RX409 | 24011221 | Chip, 220 ohm, 1/20W |
| RZ01 | 24366471 | CF, 470 ohm |
| RZ02 | 24366152 | CF, 1500 ohm |
| RZ04 | 24366332 | CF, 3300 ohm |
| RZ05 | 24366332 | CF, 3300 ohm |
| RZ06 | 24366821 | CF, 820 ohm |
| RZ07 | 24366222 | CF, 2200 ohm |
| RZ08 | 24366302 | CF, 3k ohm |
| RZ12 | 24366471 | CF, 470 ohm |
| RZ18 | 24366821 | CF, 820 ohm |
| RZ19 | 24366471 | CF, 470 ohm |
| RZ20 | 24366122 | CF, 1200 ohm |
| RZ21 | 24366680 | CF, 68 ohm |
| RZ22 | 24366101 | CF, 100 ohm |
| RZ23 | 24366821 | CF, 820 ohm |
| RZ24 | 24366821 | CF, 820 ohm |
| RZ25 | 24366101 | CF, 100 ohm |
| RZ26 | 24366101 | CF, 100 ohm |
| RZ28 | 24366821 | CF, 820 ohm |
| RZ29 | 24366331 | CF, 330 ohm |
| RZ30 | 24366331 | CF, 330 ohm |
| RZ31 | 24366102 | CF, 1k ohm |

## COILS & TRANSFORMERS

| Location No. | Part No. | Description |
|---|---|---|
| L101 | 23221803 | Coil, Choke, TLN3040D |
| L203 | 23238708 | Coil, Peaking, TRF4330AJ |
| L301 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L302 | 23289101 | Coil, Peaking, TRF4101AF |
| L400 | 23289101 | Coil, Peaking, TRF4101AF |
| L410 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L441 | 23233966 | Coil, Linearity, TLN2158AY |
| L442 | 23248164 | Coil, Choke, TLN3437AD |
| L443 | 23248165 | Coil, Choke, TLN3438AD |
| L449 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L461 | 23248111 | Coil, Choke, TLN3349D |
| L470 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L491 | 23211923 | Coil, Choke, AT4043/100 |
| L501 | 23280024 | Coil, Peaking, TRF4221AZ |
| L502 | 23103824 | Coil, TEM2028K |
| L503 | 23289470 | Coil, Peaking, TRF4470AF |
| L504 | 23103824 | Coil, TEM2028K |
| L507 | 23103824 | Coil, TEM2028K |
| L508 | 23103824 | Coil, TEM2028K |
| L509 | 23103824 | Coil, TEM2028K |
| L511 | 23103824 | Coil, TEM2028K |
| L512 | 23103824 | Coil, TEM2028K |
| L513 | 23103824 | Coil, TEM2028K |
| L514 | 23103824 | Coil, TEM2028K |
| L515 | 23103824 | Coil, TEM2028K |
| L676 | 23238562 | Coil, Peaking, TRF4109AJ |
| L677 | 23238720 | Coil, Peaking, TRF4339AJ |
| L682 | 23289109 | Coil, Peaking, TRF41R0AF |
| L683 | 23289339 | Coil, Peaking, TRF43R3AF |
| L684 | 23238562 | Coil, Peaking, TRF4109AJ |
| L685 | 23238562 | Coil, Peaking, TRF4109AJ |
| L701 | 23289100 | Coil, Peaking, TRF4100AF |

| Location No. | Part No. | Description |
|---|---|---|
| L702 | 23261974 | Coil, Choke, HC5-035 |
| L704 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L705 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L811 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L814 | 23221747 | Coil, Choke, TRF9253D |
| L875 | 23280016 | Coil, Peaking, TRF4100AZ |
| L883 | 23221747 | Coil, Choke, TRF9253D |
| L885 | 23248073 | Coil, Choke, TLN3299D |
| L886 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L889 | 23280016 | Coil, Peaking, TRF4100AZ |
| L891 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L892 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L893 | 23222694 | Coil, Width, TLN2026 |
| L896 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L897 | 23222694 | Coil, Width, TLN2026 |
| ⚠L901 | 23200276 | Coil, Degaussing, TSB-2330BR |
| L902 | 23289101 | Coil, Peaking, TRF4101AF |
| L903 | 23289101 | Coil, Peaking, TRF4101AF |
| L904 | 23289101 | Coil, Peaking, TRF4101AF |
| L905 | 23289220 | Coil, Peaking, TRF4220AF |
| L906 | 23289220 | Coil, Peaking, TRF4220AF |
| L907 | 23289220 | Coil, Peaking, TRF4220AF |
| L908 | 23289100 | Coil, Peaking, TRF4100AF |
| L910 | 23289109 | Coil, Peaking, TRF41R0AF |
| L911 | 23289101 | Coil, Peaking, TRF4101AF |
| L912 | 23289150 | Coil, Peaking, TRF4150AF |
| L913 | 23289150 | Coil, Peaking, TRF4150AF |
| L914 | 23289150 | Coil, Peaking, TRF4150AF |
| L4400 | 23221886 | Coil, Choke, TLN3073 |
| L4430 | 23289680 | Coil, Peaking, TRF4680AF |
| LA01 | 23289100 | Coil, Peaking, TRF4100AF |
| LC05 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC06 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| LC07 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC08 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC30 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC31 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF01 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF02 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF03 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF04 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF06 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF07 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF08 | 23238714 | Coil, Peaking, TRF4100AJ |
| LF09 | 23238714 | Coil, Peaking, TRF4100AJ |
| LF10 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF11 | 23289109 | Coil, Peaking, TRF41R0AF |
| LF13 | 23289100 | Coil, Peaking, TRF4100AF |
| LQ03 | 23238511 | Coil, Peaking, TRF4221AJ |
| LQ04 | 23237969 | Coil, Peaking, TRF4331AC |
| LR03 | 23237969 | Coil, Peaking, TRF4331AC |
| LV05 | 23103824 | Coil, TEM2028K |
| LV06 | 23289109 | Coil, Peaking, TRF41R0AF |
| LV07 | 23289109 | Coil, Peaking, TRF41R0AF |
| LV08 | 23289330 | Coil, Peaking, TRF4330AF |
| LV09 | 23289100 | Coil, Peaking, TRF4100AF |
| LV10 | 23103824 | Coil, TEM2028K |
| LV11 | 23103824 | Coil, TEM2028K |
| LV12 | 23103824 | Coil, TEM2028K |
| LV42 | 23289100 | Coil, Peaking, TRF4100AF |
| LV43 | 23289100 | Coil, Peaking, TRF4100AF |
| LV49 | 23103824 | Coil, TEM2028K |
| LX101 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX102 | 23103822 | Chip (Ferrite Bead), TEM2117T |

| Location No. | Part No. | Description |
|---|---|---|
| LX103 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX105 | 24000824 | Chip Jumper, 2125 Type |
| LX106 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX107 | 23289270 | Coil, Peaking, TRF4270AF |
| LX108 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX109 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX110 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX111 | 23289270 | Coil, Peaking, TRF4270AF |
| LX112 | 24000824 | Chip Jumper, 2125 Type |
| LX113 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX114 | 23245828 | Coil, Peaking, TRF46R8CB |
| LX201 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX202 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX203 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX209 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX210 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX212 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX214 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX215 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX216 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX217 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX218 | 24000824 | Chip Jumper, 2125 Type |
| LX301 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX302 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX303 | 24000824 | Chip Jumper, 2125 Type |
| LX306 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX307 | 23289229 | Coil, Peaking, TRF42R2AF |
| LX308 | 23289100 | Coil, Peaking, TRF4100AF |
| LX309 | 23289100 | Coil, Peaking, TRF4100AF |
| LX400 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX401 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX402 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX403 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX404 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX405 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX406 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX407 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX408 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX409 | 23289109 | Coil, Peaking, TRF41R0AF |
| LZ01 | 23238712 | Coil, Peaking, TRF4150AJ |
| LZ02 | 23238716 | Coil, Peaking, TRF4689AJ |
| LZ03 | 23238716 | Coil, Peaking, TRF4689AJ |
| LZ04 | 23238709 | Coil, Peaking, TRF4270AJ |
| LZ05 | 23238716 | Coil, Peaking, TRF4689AJ |
| LZ06 | 23238709 | Coil, Peaking, TRF4270AJ |
| LZ07 | 23238709 | Coil, Peaking, TRF4270AJ |
| LZ08 | 23238707 | Coil, Peaking, TRF4390AJ |
| LZ09 | 70131060 | Baze Filter, ZBF253D-00 |
| LZ10 | 70131060 | Baze Filter, ZBF253D-00 |
| LZ11 | 23289270 | Coil, Peaking, TRF4270AF |
| T401 | 23224371 | Transformer, Horiz, Drive, TLN1080AH |
| ⚠T461 | 23236513 | Transformer, Flyback, TFB4137AR |
| T461A | 23236447 | ANODE4115B |
| T461B | 23236447 | ANODE4115B |
| T461C | 23236447 | ANODE4115B |
| T801 | 23211670 | Line Filter, TRF3164G |
| ⚠T803 | 23217350 | Transformer, Converter, TPW3367AR |
| T804 | 23211670 | Line Filter, TRF3164G |

| Location No. | Part No. | Description |
|---|---|---|
| **SEMICONDUCTORS** | | |
| Q200 | A6330059 | Transistor, 2SC2482(C) |
| Q201 | A6534040 | Transistor, 2SA1015-Y |
| Q204 | A6317440 | Transistor, 2SC1815-Y |
| Q205 | A6317440 | Transistor, 2SC1815-Y |
| Q207 | A6342200 | Transistor, 2CS2878-A |
| Q301 | 23905610 | IC, LA7846N |
| Q302 | B0384625 | IC, TA8859CP |
| Q303 | A6534040 | Transistor, 2SA1015-Y |
| Q304 | A6317440 | Transistor, 2SC1815-Y |
| Q360 | A6002040 | Transistor, RN1204 |
| Q361 | A6002040 | Transistor, RN1204 |
| Q362 | A6002050 | Transistor, RN1205 |
| Q370 | A6534040 | Transistor, 2SA1015-Y |
| Q402 | A6325413 | Transistor, 2SC2235-O |
| Q404 | A6371775 | Transistor, 2SC5144 |
| Q404B | A8012650 | Spacer, AC263 |
| Q404D | 72471082 | Screw, BRDT2W3X10 SZN |
| Q418 | 23314141 | Transistor, 2SC3852 |
| Q418B | 23035308 | Screw, BTB3X8SZN |
| Q420 | 23314141 | Transistor, 2SC3852 |
| Q420B | 23035308 | Screw, BTB3X8SZN |
| Q421 | A6317440 | Transistor, 2SC1815-Y |
| Q430 | 23314141 | Transistor, 2SC3852 |
| Q460 | 23314850 | Transistor, 2SA1788, E |
| Q460B | 23037312 | Screw, BTBW3X12SZN |
| Q461 | A6317440 | Transistor, 2SC1815-Y |
| Q462 | A6317440 | Transistor, 2SC1815-Y |
| Q470 | A6317440 | Transistor, 2SC1815-Y |
| Q501 | B0385990 | IC, TA1259N |
| Q502 | A6317440 | Transistor, 2SC1815-Y |
| Q503 | A6317440 | Transistor, 2SC1815-Y |
| Q510 | A6002060 | Transistor, RN1206 |
| Q518 | A6317440 | Transistor, 2SC1815-Y |
| Q612 | A6534040 | Transistor, 2SA1015-Y |
| Q670 | B0377308 | IC, TA8256BH |
| Q670B | 70391355 | Screw, BITTB3X8 SZN |
| Q671 | A6342200 | Transistor, 2CS2878-A |
| Q672 | A6342200 | Transistor, 2CS2878-A |
| Q688 | A6002040 | Transistor, RN1204 |
| Q705 | A6317440 | Transistor, 2SC1815-Y |
| Q706 | A6317440 | Transistor, 2SC1815-Y |
| Q707 | A6734590 | Transistor, 2SC752(G)TM-Y |
| Q709 | A6317440 | Transistor, 2SC1815-Y |
| Q710 | A6534040 | Transistor, 2SA1015-Y |
| Q711 | 23314911 | Transistor, 2SB1569A E |
| Q712 | 23314914 | Transistor, 2SD2400A E |
| Q719 | A6319300 | Transistor, 2SC1959-Y |
| Q801 | 23905084 | IC, STR-S6709, L |
| Q802 | 23314141 | Transistor, 2SC3852 |
| ⚠Q826 | A8643108 | Photo Coupler, TLP621(GR-LF |
| Q830 | 23314141 | Transistor, 2SC3852 |
| Q830B | 70391355 | Screw, BITTB3X8 SZN |
| Q831 | 23314141 | Transistor, 2SC3852 |
| Q831B | 70391355 | Screw, BITTB3X8 SZN |
| Q832 | 23905977 | IC, PQ09RD11 |
| Q832B | 70391356 | Screw, BITTB3X10 SZN |
| Q840 | 23318299 | IC, L78MR05 |
| Q901 | A6368700 | Transistor, 2CS4544 |
| Q902 | A6317440 | Transistor, 2SC1815-Y |
| Q903 | A6368700 | Transistor, 2CS4544 |
| Q904 | A6317440 | Transistor, 2SC1815-Y |
| Q905 | A6368700 | Transistor, 2CS4544 |
| Q906 | A6317440 | Transistor, 2SC1815-Y |

| Location No. | Part No. | Description |
|---|---|---|
| Q907 | A6509140 | Transistor, 2SA562TM-Y |
| Q908 | A6321240 | Transistor, 2SC2120-Y |
| Q910 | A6317440 | Transistor, 2SC1815-Y |
| Q911 | A6317440 | Transistor, 2SC1815-Y |
| Q912 | A6534040 | Transistor, 2SA1015-Y |
| Q913 | A6534040 | Transistor, 2SA1015-Y |
| Q914 | A6317440 | Transistor, 2SC1815-Y |
| Q4321 | A6002040 | Transistor, RN1204 |
| Q4420 | 23316816 | IC, LA7860 |
| Q4421 | A6002040 | Transistor, RN1204 |
| Q4423 | A6325413 | Transistor, 2SC2235-O |
| QA01 | 23000177 | IC, TMP87CS38N-1C14 |
| QA02 | 23904666 | IC, NM24C08EN |
| QA04 | A6002040 | Transistor, RN1204 |
| QA05 | A6734590 | Transistor, 2SC752(G)TM-Y |
| QB01 | A6317440 | Transistor, 2SC1815-Y |
| QB30 | A6317440 | Transistor, 2SC1815-Y |
| QF01 | 23906822 | IC, SDA5273-2S C |
| QF03 | A6317440 | Transistor, 2SC1815-Y |
| QF04 | A6734590 | Transistor, 2SC752(G)TM-Y |
| QG01 | B0385643 | IC, TA1216AN |
| QQ02 | B0383881 | IC, TA8772AN |
| QQ03 | 23314794 | Transistor, 2PC1815Y |
| QQ04 | 23314794 | Transistor, 2PC1815Y |
| QQ05 | 23314794 | Transistor, 2PC1815Y |
| QQ06 | A6002030 | Transistor, RN1203 |
| QQ07 | 23314794 | Transistor, 2PC1815Y |
| QQ08 | 23314794 | Transistor, 2PC1815Y |
| QR21 | 23904807 | IC, MC14577CP |
| QR22 | 23905603 | IC,TDA8443B |
| QR23 | A6534040 | Transistor, 2SA1015-Y |
| QR24 | A6534040 | Transistor, 2SA1015-Y |
| QR25 | 23904807 | IC, MC14577CP |
| QS01 | A6342200 | Transistor, 2CS2878-A |
| QS02 | A6342200 | Transistor, 2CS2878-A |
| QS03 | A6342200 | Transistor, 2CS2878-A |
| QS04 | A6342200 | Transistor, 2CS2878-A |
| QS05 | A6342200 | Transistor, 2CS2878-A |
| QS06 | A6342200 | Transistor, 2CS2878-A |
| QS07 | A6010040 | Transistor, RN2004 |
| QS08 | A6342200 | Transistor, 2CS2878-A |
| QS09 | A6342200 | Transistor, 2CS2878-A |
| QV01 | B0385650 | IC, TA1218N |
| QV02 | A6317440 | Transistor, 2SC1815-Y |
| QV06 | A6534040 | Transistor, 2SA1015-Y |
| QV07 | A6342200 | Transistor, 2CS2878-A |
| QV08 | A6317440 | Transistor, 2SC1815-Y |
| QV09 | A6317440 | Transistor, 2SC1815-Y |
| QV10 | A6317440 | Transistor, 2SC1815-Y |
| QV11 | A6534040 | Transistor, 2SA1015-Y |
| QV12 | A6317440 | Transistor, 2SC1815-Y |
| QV14 | A6317440 | Transistor, 2SC1815-Y |
| QV80 | A6534040 | Transistor, 2SA1015-Y |
| QX101 | 23314204 | Transistor, 2SC2412K, Q |
| QX102 | 70128490 | IC, MM1031XMR |
| QX103 | 23314345 | Transistor, IMZ1 T108 |
| QX104 | 23314204 | Transistor, 2SC2412K, Q |
| QX105 | A6030670 | IC, TC7S66F |
| QX106 | 23905190 | IC, TLC5510INS |
| QX108 | 23314204 | Transistor, 2SC2412K, Q |
| QX109 | 23314344 | Transistor, IMX1 T110 |
| QX110 | A6030670 | IC, TC7S66F |
| QX111 | 23314204 | Transistor, 2SC2412K, Q |
| QX112 | A6030670 | IC, TC7S66F |
| QX114 | 23905190 | IC, TLC5510INS |
| QX116 | 23314204 | Transistor, 2SC2412K, Q |
| QX117 | 23314344 | Transistor, IMX1 T110 |
| QX118 | A6030670 | IC, TC7S66F |
| QX119 | 23314204 | Transistor, 2SC2412K, Q |
| QX120 | A6030670 | IC, TC7S66F |
| QX201 | A6361770 | Transistor, 2SC3437-Y |
| QX202 | A6030871 | IC, TC7W04F(BRA) |
| QX203 | 23905013 | IC, TLC29321PW |
| QX204 | B0370000 | IC, TC78L05F |
| QX205 | 23905013 | IC, TLC29321PW |
| QX211 | B0508717 | IC, TC190G04AF-0 |
| QX212 | 23906747 | IC, M518221A-30Z |
| QX213 | 23906747 | IC, M518221A-30Z |
| QX214 | B0488966 | IC, TC74AC74F |
| QX216 | A6030640 | IC, TC7S32F |
| QX301 | 23319052 | IC, MB40978PFQ |
| QX302 | 23314204 | Transistor, 2SC2412K, Q |
| QX303 | 23314204 | Transistor, 2SC2412K, Q |
| QX304 | 23314204 | Transistor, 2SC2412K, Q |
| QX305 | 23314204 | Transistor, 2SC2412K, Q |
| QX306 | 23314204 | Transistor, 2SC2412K, Q |
| QX307 | 23314204 | Transistor, 2SC2412K, Q |
| QZ01 | B0410688 | IC, TC9090AN |
| QZ02 | A6317440 | Transistor, 2SC1815-Y |
| QZ03 | A6317440 | Transistor, 2SC1815-Y |
| QZ04 | A6317440 | Transistor, 2SC1815-Y |
| QZ06 | A6317440 | Transistor, 2SC1815-Y |
| D101 | 23316411 | Diode, Zener, HZT33-12 |
| D201 | 23115599 | Diode, 1N4148 |
| D240 | 23316553 | Diode, 1SS145 |
| D301 | 23118479 | Diode, BYD33J |
| D302 | 23118479 | Diode, BYD33J |
| D303 | 23316794 | Diode, SC570ALFE2 |
| D306 | 23115599 | Diode, 1N4148 |
| D312 | 23115599 | Diode, 1N4148 |
| D370 | 23316658 | Diode, Zener, MTZJ3.6A |
| D371 | 23115599 | Diode, 1N4148 |
| D372 | 23115599 | Diode, 1N4148 |
| D404 | 23357043 | Diode, FMQ-G5GS |
| D404C | 72471082 | Screw, BRDT2W3X10 SZN |
| D406 | 23118479 | Diode, BYD33J |
| D418 | 23316749 | Diode, Zener, MTZJ30A |
| D419 | 23316716 | Diode, Zener, MTZJ11B |
| D420 | 23316716 | Diode, Zener, MTZJ11B |
| D421 | 23316680 | Diode, Zener, MTZJ7.5A |
| D422 | 23316726 | Diode, Zener, MTZJ15C |
| D431 | 23316678 | Diode, Zener, MTZJ6.8B |
| D432 | 23316678 | Diode, Zener, MTZJ6.8B |
| D436 | 23115599 | Diode, 1N4148 |
| D441 | 23316687 | Diode, Zener, MTZJ9.1B |
| D460 | 23118479 | Diode, BYD33J |
| D461 | 23316582 | Diode, ERC20-06 |
| D463 | 23115599 | Diode, 1N4148 |
| D464 | 23316718 | Diode, Zener, MTZJ12A |
| D466 | 23316672 | Diode, Zener, MTZJ5.6B |
| D467 | 23118479 | Diode, BYD33J |
| D468 | 23316718 | Diode, Zener, MTZJ12A |
| D474 | 23316719 | Diode, Zener, MTZJ12B |
| D490 | 23115599 | Diode, 1N4148 |
| D498 | 23316719 | Diode, Zener, MTZJ12B |
| D499 | 23115599 | Diode, 1N4148 |
| D501 | 23115599 | Diode, 1N4148 |
| D502 | 23115599 | Diode, 1N4148 |

| Location No. | Part No. | Description |
|---|---|---|
| D611 | 23115599 | Diode, 1N4148 |
| D612 | 23115599 | Diode, 1N4148 |
| D613 | 23115599 | Diode, 1N4148 |
| D617 | 23115599 | Diode, 1N4148 |
| D670 | 23115599 | Diode, 1N4148 |
| D671 | 23115599 | Diode, 1N4148 |
| D674 | 23115599 | Diode, 1N4148 |
| D675 | 23115599 | Diode, 1N4148 |
| D704 | 23115599 | Diode, 1N4148 |
| D705 | 23115599 | Diode, 1N4148 |
| D715 | 23115599 | Diode, 1N4148 |
| D721 | 23115599 | Diode, 1N4148 |
| D801 | 23357041 | Diode, LN6SB60-F05 |
| D801B | 23035308 | Screw, BTB 3X8 SZN |
| D803 | 23118479 | Diode, BYD33J |
| D804 | 23316678 | Diode, Zener, MTZJ6.8B |
| D805 | 23115599 | Diode, 1N4148 |
| D806 | 23118479 | Diode, BYD33J |
| D808 | 23118479 | Diode, BYD33J |
| D809 | 23316672 | Diode, Zener, MTZJ5.6B |
| D810 | 23115599 | Diode, 1N4148 |
| D811 | 23115599 | Diode, 1N4148 |
| D812 | 23118451 | Diode, RU-4A LF-L1 |
| D815 | 23316725 | Diode, Zener, MTZJ15B |
| D828 | 23115599 | Diode, 1N4148 |
| D883 | 23316406 | Diode, FML-G16S |
| D885 | 23316184 | Diode, FML-G12S |
| D891 | 23316184 | Diode, FML-G12S |
| D892 | 23316184 | Diode, FML-G12S |
| D892 | 23316673 | Diode, Zener, MTZJ5.6C |
| D893 | 23316672 | Diode, Zener, MTZJ5.6B |
| D896 | 23118479 | Diode, BYD33J |
| D901 | 23115599 | Diode, 1N4148 |
| D903 | 23115599 | Diode, 1N4148 |
| D904 | 23115599 | Diode, 1N4148 |
| D905 | 23115599 | Diode, 1N4148 |
| D906 | 23115599 | Diode, 1N4148 |
| D907 | 23115599 | Diode, 1N4148 |
| D908 | 23115599 | Diode, 1N4148 |
| D909 | 23115599 | Diode, 1N4148 |
| D910 | 23115599 | Diode, 1N4148 |
| D911 | 23118479 | Diode, BYD33J |
| D4301 | 23316726 | Diode, Zener, MTZJ15C |
| DB01 | 23358505 | Diode (LED), SLR56VC196F |
| DB02 | 23358503 | Diode (LED), SCL003MC3FX |
| DB30 | 23115599 | Diode, 1N4148 |
| DF01 | 23316654 | Diode, Zener, MTZJ3.0A |
| DQ01 | 23115599 | Diode, 1N4148 |
| DR01 | 23316719 | Diode, Zener, MTZJ12B |
| DR02 | 23316719 | Diode, Zener, MTZJ12B |
| DR03 | 23316719 | Diode, Zener, MTZJ12B |
| DR04 | 23316719 | Diode, Zener, MTZJ12B |
| DV01 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV02 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV03 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV04 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV05 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV06 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV07 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV10 | 23115599 | Diode, 1N4148 |
| DV11 | 23115599 | Diode, 1N4148 |
| DV12 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV80 | 23115599 | Diode, 1N4148 |
| DZ01 | 23316690 | Diode, Zener, MTZJ10B |

| Location No. | Part No. | Description |
|---|---|---|
| **MISCELLANEOUS** | | |
| B202 | 23470427 | Frame, Terminal |
| B221 | 23037312 | Screw, BTBW 3X12 SZN |
| B226 | 23035312 | Screw, BTB 3X12 SZN |
| BB02 | 23903022 | Socket, 8P |
| BB03 | 23903022 | Socket, 8P |
| BB04 | 23903022 | Socket, 8P |
| BB05 | 23903022 | Socket, 8P |
| BB06 | 23903022 | Socket, 8P |
| BB07 | 23903022 | Socket, 8P |
| BB21 | 23903022 | Socket, 8P |
| BB21A | 23368627 | Plug, 8P |
| BB41 | 23903022 | Socket, 8P |
| BB41A | 23368627 | Plug, 8P |
| BB51 | 23903022 | Socket, 8P |
| BB51A | 23368627 | Plug, 8P |
| BB61 | 23903022 | Socket, 8P |
| BB61A | 23368627 | Plug, 8P |
| BB71 | 23903022 | Socket, 8P |
| BB71A | 23368627 | Plug, 8P |
| BB81 | 23903022 | Socket, 8P |
| BB81A | 23368627 | Plug, 8P |
| ⚠F470 | 23144502 | Fuse, 1.0A, 250V |
| F470A | 23165433 | Holder, Fuse |
| F470B | 23165433 | Holder, Fuse |
| ⚠F801 | 23144507 | Fuse, 3.15A, 250V |
| F801A | 23165433 | Holder, Fuse |
| ⚠F802 | 23144506 | Fuse, 2.5A, 250V |
| F802A | 23165433 | Holder, Fuse |
| G224 | 24366271 | CF, 270 ohm |
| G311 | 24366332 | CF, 3300 ohm |
| G333 | 23238702 | Coil, Peaking, TRF4101AJ |
| G401 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| G402 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| G403 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| G404 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| G430 | A7568460 | Diode, TVR-1B |
| G510 | 23289470 | Coil, Peaking, TRF4470AF |
| G516 | 24366101 | CF, 100 ohm |
| G517 | 24366101 | CF, 100 ohm |
| G525 | 24366103 | CF, 10k ohm |
| G601 | 23238714 | Coil, Peaking, TRF4100AJ |
| G602 | 23238714 | Coil, Peaking, TRF4100AJ |
| G812 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| GL41 | 23237969 | Coil, Peaking, TRF4331AC |
| GL42 | 23237969 | Coil, Peaking, TRF4331AC |
| GV13 | 24366681 | CF, 680 ohm |
| GV17 | 23289109 | Coil, Peaking, TRF41R0AF |
| GV80 | 24366681 | CF, 680 ohm |
| GV81 | 24366681 | CF, 680 ohm |
| H002 | 23148250 | Module, MVGS44A, BG/DK IGR(IM9) |
| KB01 | 23904946 | Remote Sensor, RPM-676CBR-S |
| P104 | 23368103 | Plug, 3P |
| P402A | 23902780 | Socket, B-B, 11P |
| P402B | 23368530 | Plug, B-B, 11P |
| P512 | 23902863 | Socket, 20P |
| P513 | 23902863 | Socket, 20P |
| P661 | 23363607 | Jack, Headphone |
| ⚠P801 | 23372014 | Power Cord |
| PD30A | 23902063 | Socket, B-B, 6P |
| PD31A | 23902852 | Socket, B-B, 7P |
| PF01A | 23367724 | Plug, B-B,15P |

| Location No. | Part No. | Description |
|---|---|---|
| PF01B | 23902655 | Socket, B-B, 15P |
| PG01 | 23368005 | Plug, B-B, 6P |
| PG02 | 23368511 | Plug, B-B, 7P |
| PQ01A | 23902655 | Socket, B-B, 15P |
| PQ01B | 23367724 | Plug, B-B,15P |
| PR01A | 23902064 | Socket, B-B, 8P |
| PR01B | 23368006 | Plug, B-B, 8P |
| PR02A | 23902064 | Socket, B-B, 8P |
| PR02B | 23368006 | Plug, B-B, 8P |
| PU01 | 23902655 | Socket, B-B, 15P |
| PU02 | 23902781 | Socket, B-B, 12P |
| PV03 | 23365546 | Jack, S-VHS, 4P |
| PV04 | 23363252 | Jack, 1P Phono(Yel) |
| PV05 | 23365508 | Jack, Phono, 2P |
| PV10B | 23368520 | Plug, B-B, 20P |
| PV11B | 23368520 | Plug, B-B, 20P |
| PX01B | 23367724 | Plug, B-B,15P |
| PX02B | 23368531 | Plug, B-B, 12P |
| PZ01A | 23902213 | Socket, B-B, 10P |
| PZ01B | 23368130 | Plug, B-B,10P |
| ⚠S801 | 23344395 | Switch, Push, 2C1P |
| SA01 | 23145430 | Switch, Push, 1C1P |
| SA02 | 23145430 | Switch, Push, 1C1P |
| SA03 | 23145430 | Switch, Push, 1C1P |
| SA04 | 23145430 | Switch, Push, 1C1P |
| SA06 | 23145430 | Switch, Push, 1C1P |
| ⚠V901A | 23902891 | Socket, CRT, 10P |
| W661 | 23351116 | Speaker, SPK-1382, 60X120mm, 8 ohm (2896DD) |
| W661 | 23351143 | Speaker, SPK-1400, 60X120mm, 8 ohm (7096DD) |
| W662 | 23351116 | Speaker, SPK-1382, 60X120mm, 8 ohm (2896DD) |
| W661 | 23351143 | Speaker, SPK-1400, 60X120mm, 8 ohm (7096DD) |
| X401 | 23153721 | Ceramic Resonator, 503kHz, TCR1023 |
| X501 | 23153961 | Crystal, 3.58MHz |
| X503 | 23153979 | Crystal, 4.43MHz |
| XA01 | 23153325 | Ceramic Resonator, 8.00MHz, TCR1056 |
| XF01 | 23153421 | Crystal, 20.48MHz |
| Z201 | 23107519 | Ceramic Video Trap, 4.43MHz, TCF1066 |
| Z420 | 23144539 | Protector, PRF20005491, 125V, 2A |
| ⚠Z430 | 23144536 | Protector, PRF10005491, 125V, 1A |
| Z801 | 23904998 | IC, HIC1016 |
| ⚠Z889 | 23144543 | Protector, PRF50005491, 125V, 5A |
| ⚠Z890 | 23144543 | Protector, PRF50005491, 125V, 5A |
| ⚠Z891 | 23144543 | Protector, PRF50005491, 125V, 5A |
| ⚠Z896 | 23144539 | Protector, PRF20005491, 125V, 2A |
| ⚠Z897 | 23144539 | Protector, PRF20005491, 125V, 2A |
| ZT01 | 23153736 | Ceramic Resonator, TCR1025 |
| ZX101 | 23103823 | Filter, TEM2027D |
| ZX102 | 23103823 | Filter, TEM2027D |
| ZX103 | 23103823 | Filter, TEM2027D |
| ZX104 | 23103823 | Filter, TEM2027D |

| Location No. | Part No. | Description |
|---|---|---|
| ZX201 | 23103823 | Filter, TEM2027D |
| ZX202 | 23103823 | Filter, TEM2027D |
| ZX203 | 23103823 | Filter, TEM2027D |
| ZX801 | 23303181 | Filter, TEM1012N |
| ZX802 | 23303181 | Filter, TEM1012N |

## PC BOARD ASSEMBLIES

| | | |
|---|---|---|
| * U902A | 23783976 | Signal Board, 7208D-1 |
| * U902B | 23783977 | A-PRO Board, PB7208-2 A-P |
| * U903A | 23784569 | Power Board, PB7209A-1 |
| * U903B | 23784570 | DEF Board, PB7209A-2 |
| * U904 | 23706629 | BACK-T Board, PB7211Y |
| * U905 | 23784571 | CRT Drive/DSM Board, PB7212A |
| * U906A | 23783978 | SECAM+1HDL Board, PB7213A-1 |
| * U906B | 23783979 | COMB Board, PB7213A-2 |
| * U906C | 23783980 | YUV SW Board, PB7213A-3 |
| * U906D | 23783981 | PAL 100HZ Board, PB7213A-4 |
| * U907 | 23706855 | TEXT Board, PB6513Y |
| * U908A | 23706825 | UP CONVER Board, PB7366X |

## PICTURE TUBE

| | | |
|---|---|---|
| ⚠V901 | 23312858 | Picture Tube, A66EAK071X54 |

## TUNER

| | | |
|---|---|---|
| H001 | 23321278 | Tuner, EGA12LX3 |

## ACCESSORIES

| | | |
|---|---|---|
| K902 | 23306175 | Remote Hand Unit, CT-9867 |
| AT04 | 23305572 | Battery Cover |
| Y103 | 23563771 | Owner's Manual, German, 2896DD/7096DD |
| Y104 | 23563772 | Owner's Manual, Itarian, 2896DD/7096DD |

## CABINET PARTS

| | | |
|---|---|---|
| A201S | 23510020 | Front Cover (2896DD) |
| A201S | 23549819 | Front Cover (7096DD) |
| A214 | 23035412 | Screw, BTB4X12SZN |
| A231 | 23444902 | Button, Power |
| A233 | 23430336 | Lens (Remote) |
| A235 | 23432920 | Mark |
| A236 | 23519547 | Speaker Grille (2896DD) |
| A236 | 23527111 | Speaker Grille (7096DD) |
| A237 | 23443966 | Button Control |
| A241 | 70368125 | Push Catch for Door |
| A242 | 23426957 | Door |
| A243 | 23421759 | Piece (Decorative) |
| ⚠A401 | 23426393 | Back Cover |
| A411 | 23550788 | Label, Model No. 2896DD |
| A411 | 23564219 | Label, Model No. 7096DD |
| A701 | 23524766 | Case |
| A702 | 23935374 | Packing, Bottom |
| A703 | 23935375 | Packing, Top |

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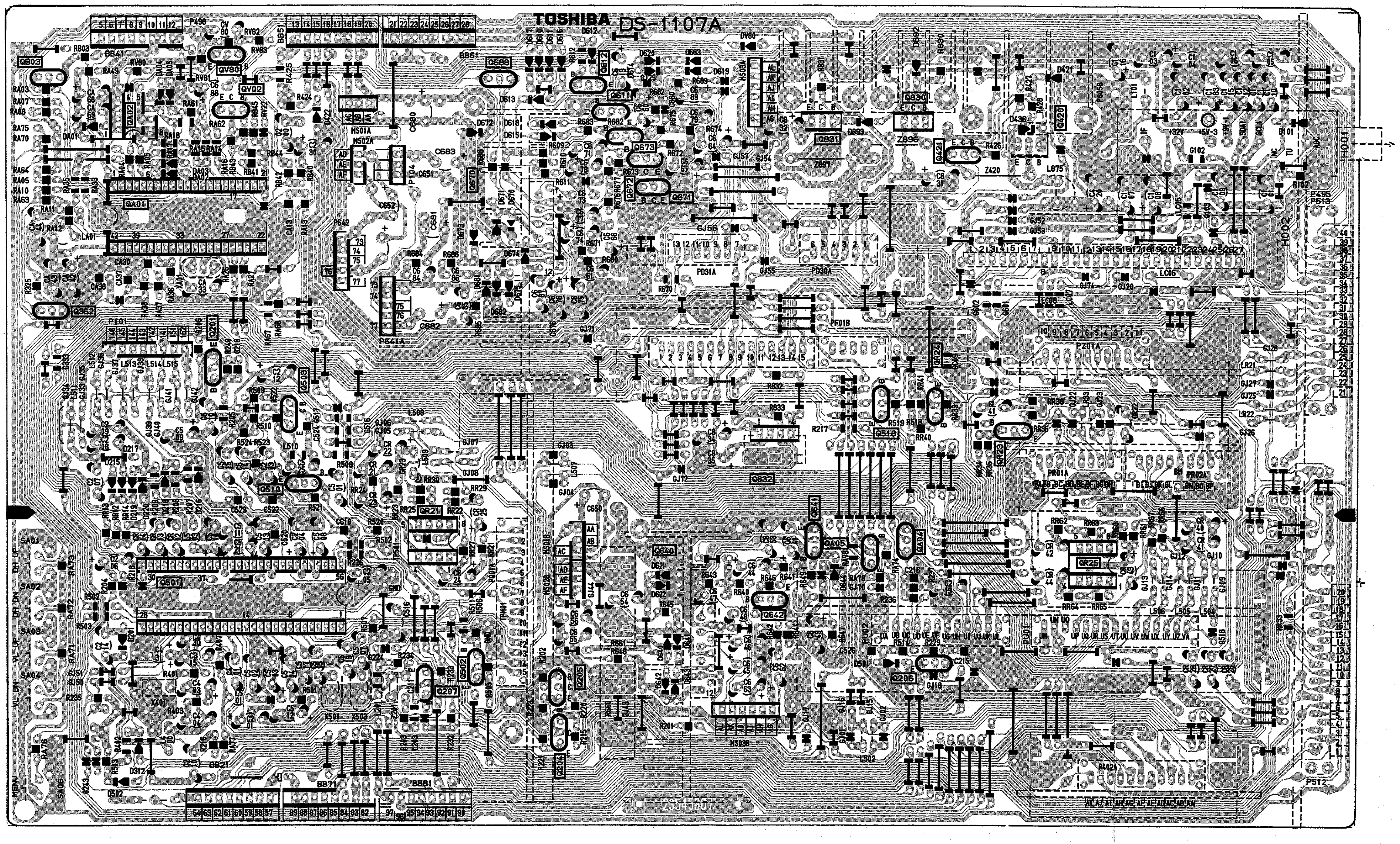
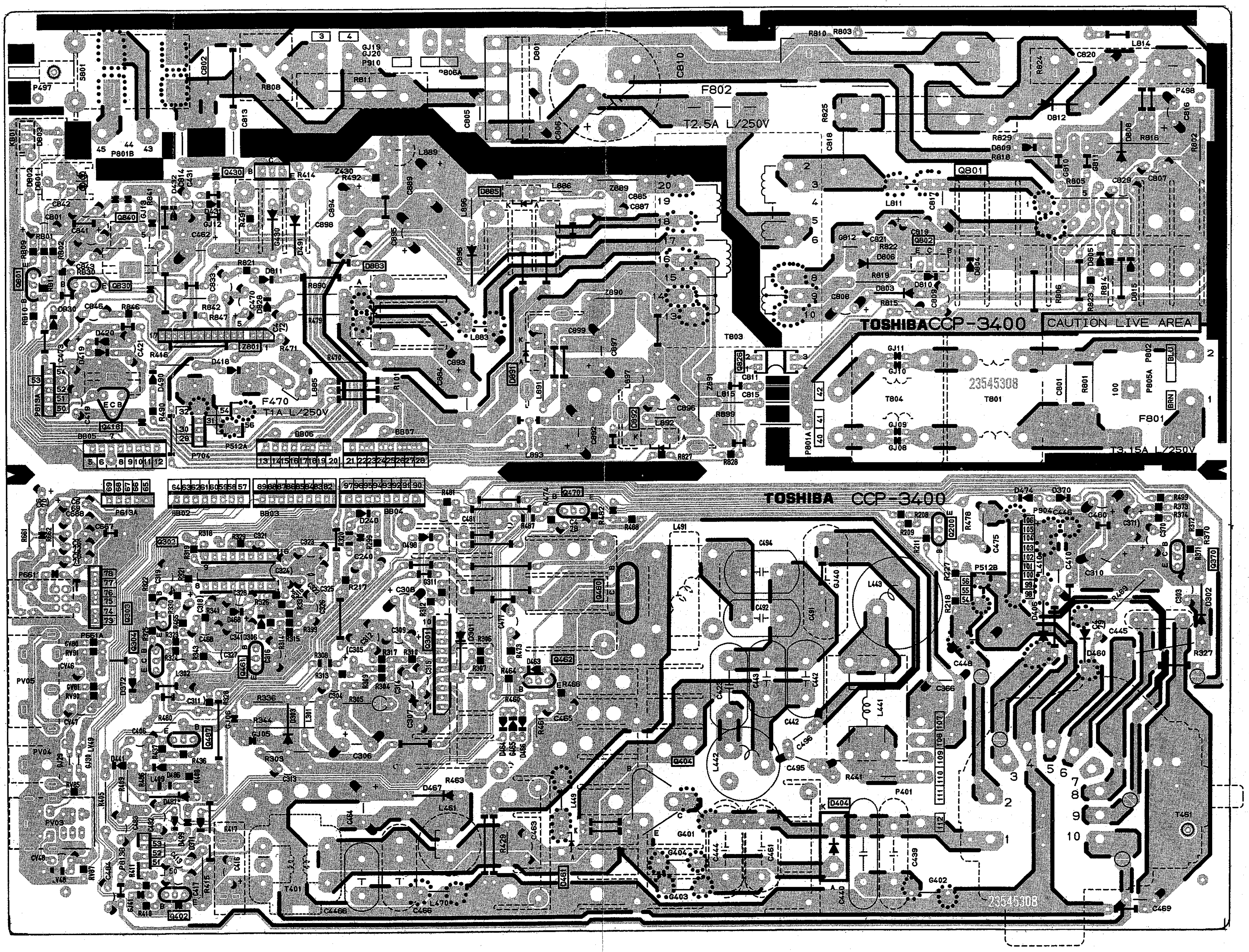
# SIGNAL BOARD PB7208D-1

## BOTTOM (FOIL) SIDE


TOSHIBA
DS-1107A
SA01
SA02
SA03
SA04
SA06
DH UP
DH DN
VL UP
VL DN
MENU
H001
H002
P512

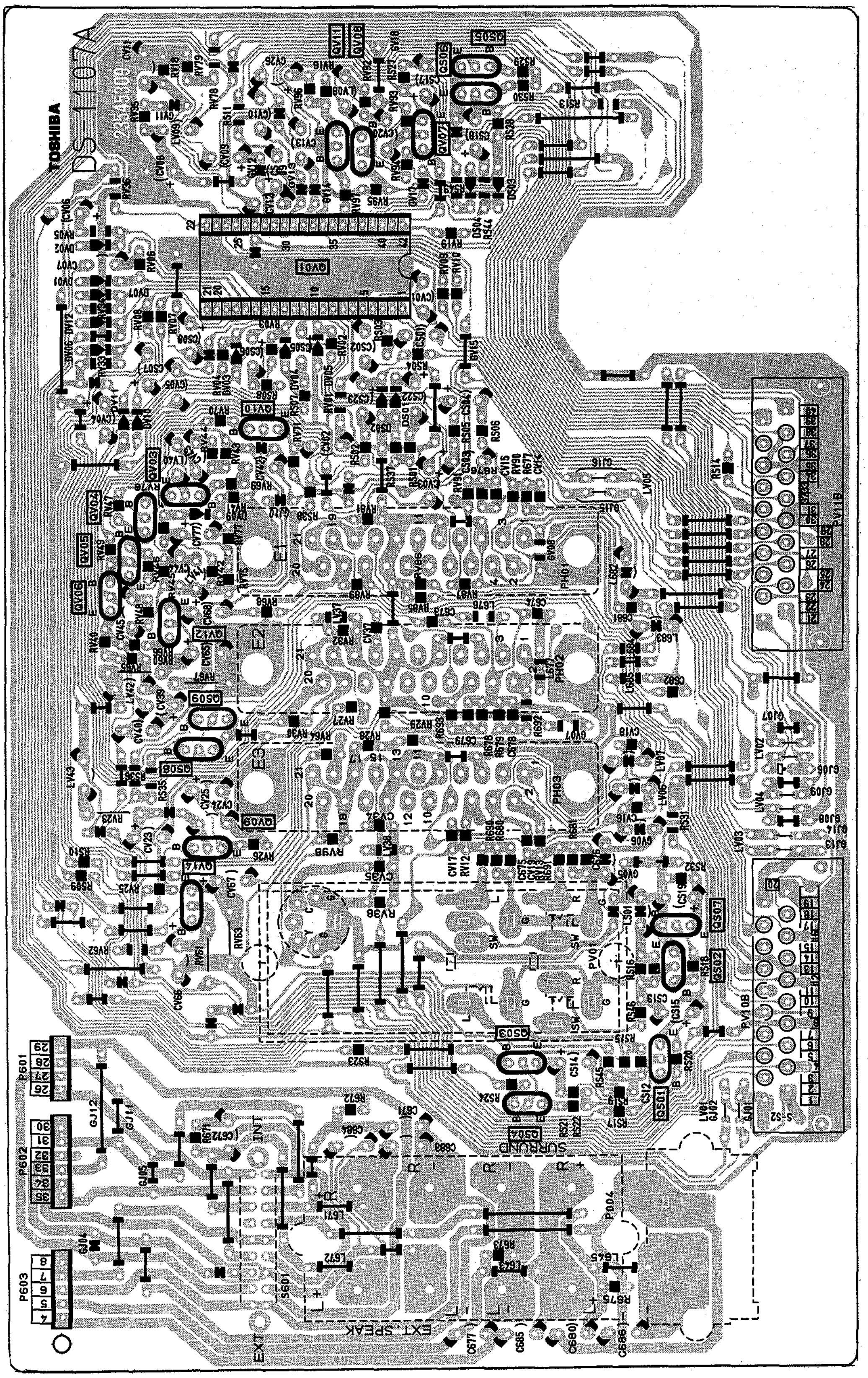
# POWER BOARD PB7209X-1/DEF BOARD PB7209A-2

BOTTOM (FOIL) SIDE


TOSHIBA CCP-3400
CAUTION LIVE AREA
F802
T2.5A L/250V
F470
T1A L/250V
F801
T3.15A L/250V
23545308
TOSHIBA CCP-3400
23545308
T803
T804
T801
T401
T461
P497
P498
P801B
P801A
P802
P805A
P512A
P512B
P401
P704
P904
S801
Q801
Q802
Q830
Q840
Q430
Q418
Q470
Q200
Q370
Q302
Q304
Q450
Q452
Q404
Q402
G401
G402
G403
G404
D801
D803
D812
D404
D460
D461
D467
D474
D370
L814
L886
L889
L893
L443
L441
L442
L461
L470
C810
C820
C816
C494
C492
C491
C495
C469
R810
R803
R824
R825
R827
R828
R899
R441
R327
BRN
BLU

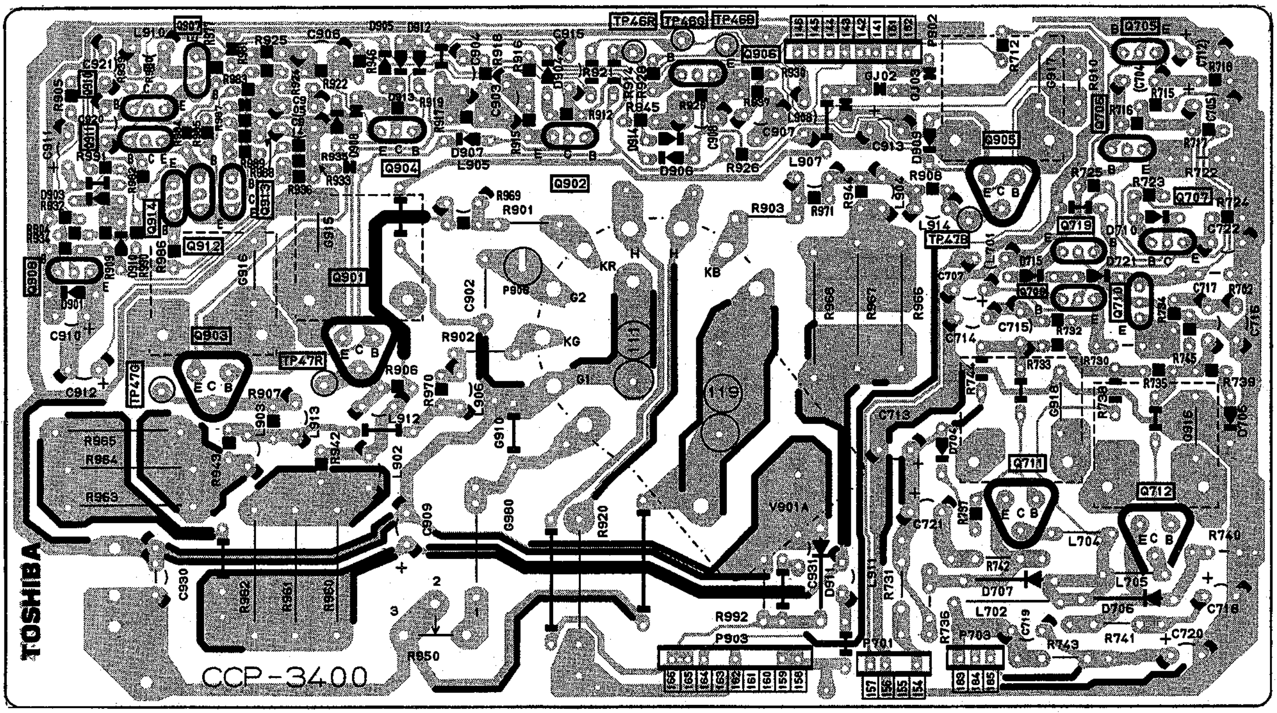
# BACK TERMINAL/AV BOARD PB7211Y

## BOTTOM (FOIL) SIDE


TOSHIBA
P601
P602
P603
SURROUND
EXT SPEAK
PH101
PH102
PH103
QV01

# CRT DRIVE/DSM BOARD PB7212A

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
Q901
Q902
Q903
Q904
Q905
Q906
Q907
Q912
Q705
Q707
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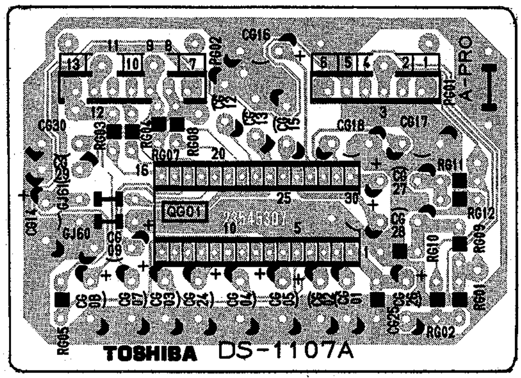
Q712
Q719
TP46R
TP46G
TP46B
TP47R
TP47G
TP47B
V901A
P903
P701
P703
R901
R902
R903
R906
R907
R920
R950
R992
C902
KR
KG
KB
G1
G2
H
E C B
R960
R961
R962
R963
R964
R965
R966
R967
R968
L704
L705
D706
D707
R740
R741
R743
C718
C720

# A-PRO BOARD PB7208D-2

BOTTOM (FOIL) SIDE


A-PRO
TOSHIBA
DS-1107A
QG01
CG16
CG17
CG18
CG30
CG14
GJ60
RG01
RG02
RG03
RG07
RG08
RG09
RG10
RG11
RG12
1
2
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16
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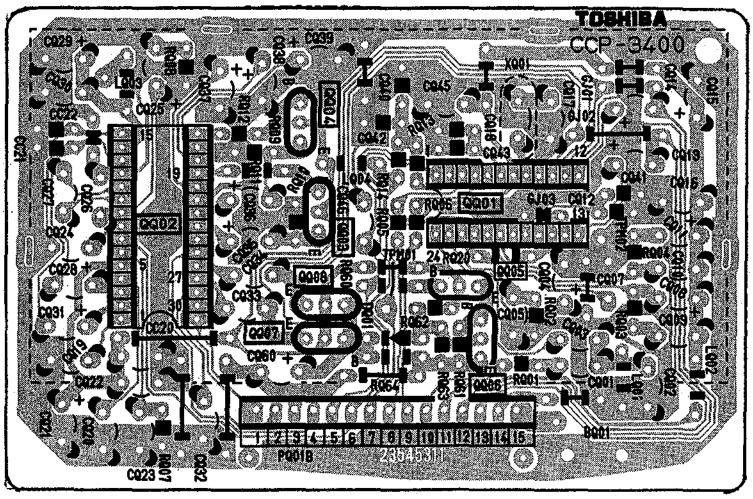
25
30

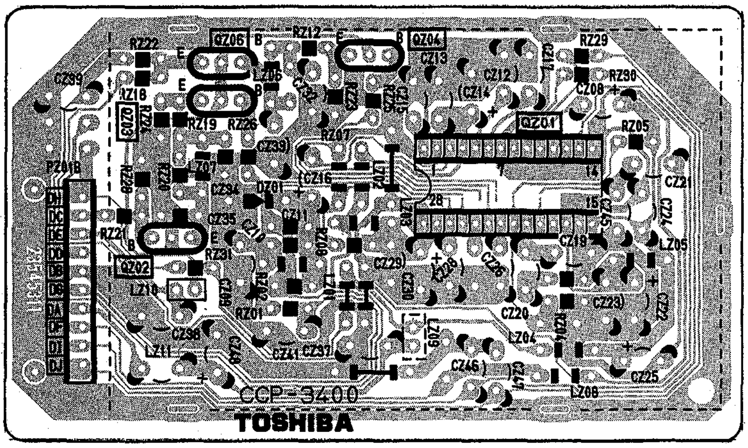
## SECAM BOARD PB7213A-1

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
QQ02
QQ01
QQ04
QQ05
QQ06
QQ07
QQ08
QQ03
X001
CQ29
CQ39
CQ45
CQ42
CQ43
CQ12
CQ41
CQ13
CQ15
CQ22
CQ25
CQ24
CQ28
CQ31
CQ20
CQ33
CQ60
CQ07
CQ22
CQ23
CQ32
RQ20
RQ64
RQ01
RQ04
RQ07
PQ01B
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
23645311

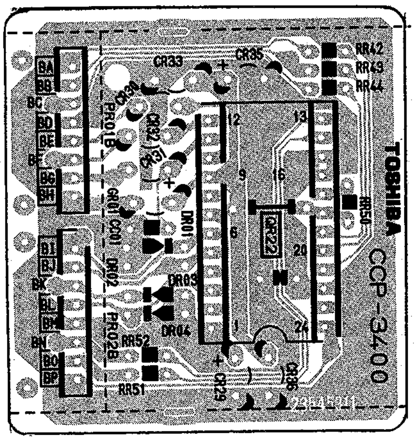
## COMB BOARD PB7213A-2

BOTTOM (FOIL) SIDE


QZ06
QZ04
QZ03
QZ01
QZ02
RZ22
RZ12
RZ29
RZ30
CZ39
CZ13
CZ12
CZ14
CZ08
RZ18
RZ19
RZ26
RZ07
RZ05
PZ01B
DN
DC
DE
DD
DB
DG
DA
DF
DI
DJ
CZ34
CZ35
CZ16
CZ21
CZ24
LZ05
RZ31
LZ10
RZ01
CZ38
LZ11
CZ41
CZ37
CZ29
CZ28
CZ26
CZ19
CZ20
CZ23
LZ04
CZ46
CZ25
LZ08
CCP-3400
TOSHIBA

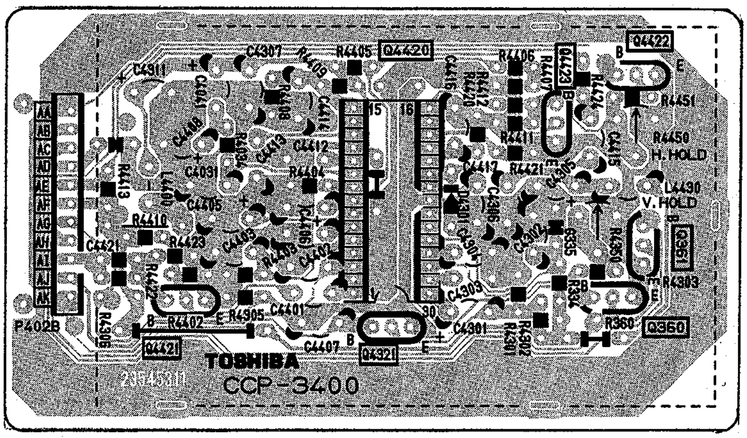
## YUV S/W BOARD PB7213A-3

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
23545311
PR01B
PR02B
CR33
CR35
RR42
RR49
RR44
RR50
RR51
RR52
QR22
DR01
DR02
DR03
DR04
CR29
CR36
CR31
CR32
C001
BA
BB
BC
BD
BE
BF
BG
BH
BI
BJ
BK
BL
BM
BN
BO
BP

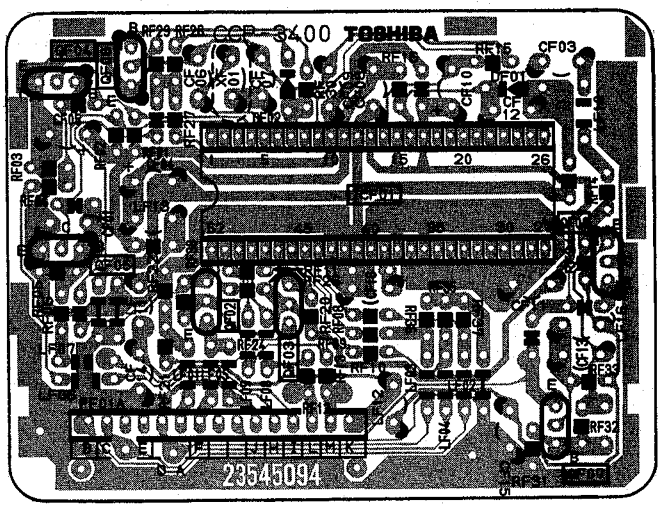
## PAL/100Hz BOARD PB7213A-4

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
23545311
P402B
AA
AB
AC
AD
AE
AF
AG
AH
AI
AJ
AK
C4311
C4307
R4405
Q4420
R4406
Q4423
Q4422
R4451
R4450
H. HOLD
L4430
V. HOLD
Q361
R4303
Q360
R360
R4413
R4410
R4423
C4421
R4402
R4305
C4401
C4407
Q4421
Q4321
C4301
C4303
R334
C4412
R4404
R4411
R4421
C4405
C4031

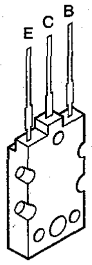
## TEXT BOARD PB6513Y

BOTTOM (FOIL) SIDE

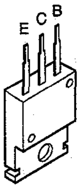

CCP-3400
TOSHIBA
23545094
RF29
RF28
RF15
CF03
DF01
CF10
RF03
RF27
RF32
RF33
RF31
CF15
1
5
15
20
26

# TERMINAL VIEW OF TRANSISTORS

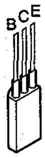
① 2SD2253
(old)
2SC5243



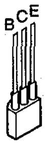
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



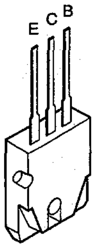
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



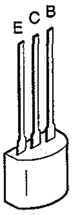
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



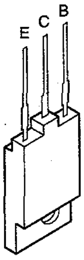
⑤ 2SA1788



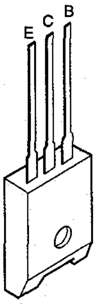
⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205
RN1202
RN1201



⑦ 2SD1554
2SD2253
2SD1556
2SC5143
2SD2553



⑧ ON4409



MEMO

1

# SCHEMATIC DIAGRAM MODEL : 2896DD / 7096DD (1/4)

**CAUTION**: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

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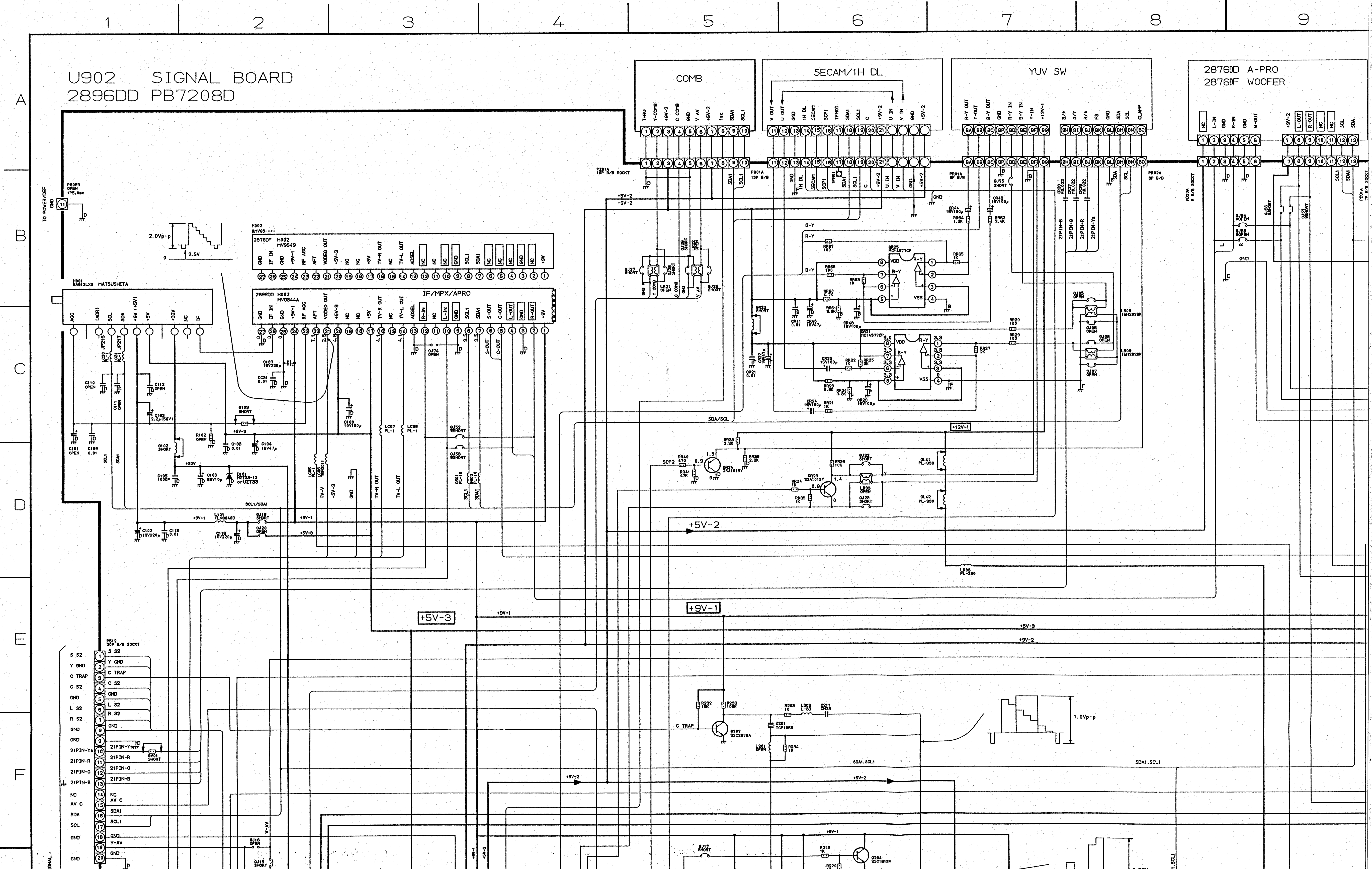
1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

## NOTES:

1. D.C. resistance value of a principal transform gram. These are measured for separated from
2. The circuits are subject to change without noti
3. ⊖ : Solder links.



1
2
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7
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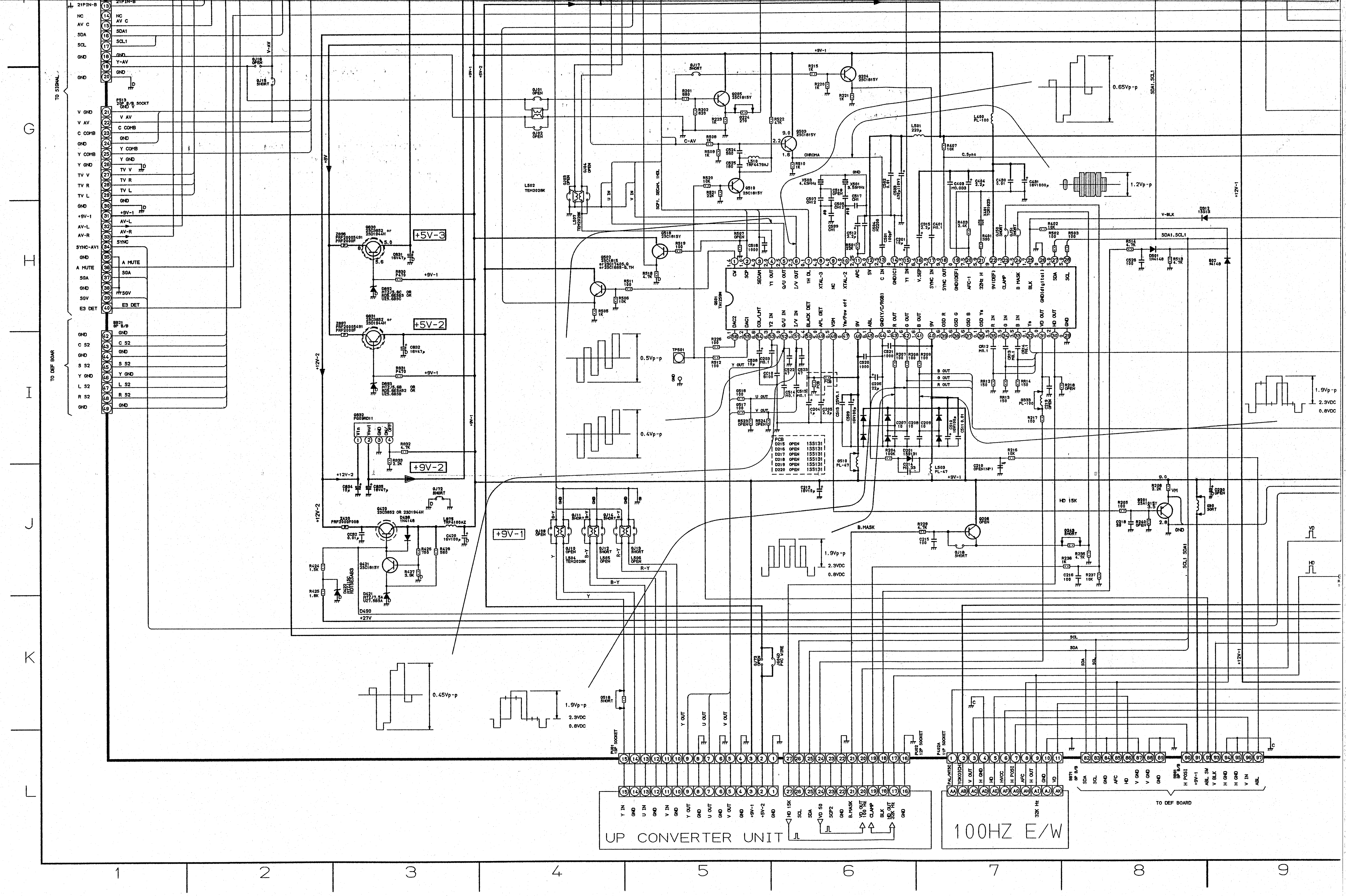
9
A
B
C
D
E
F
U902 SIGNAL BOARD
2896DD PB7208D
COMB
SECAM/1H DL
YUV SW
28760D A-PRO
2876DF WOOFER
IF/MPX/APRO
2876DF H002 MV0549
2896DD H002 MV0544A
H001 EA912LX3 MATSUSHITA
TO POWER/DEF
2.0Vp-p
2.5V
0
1.0Vp-p
+12V-1
+5V-2
+5V-3
+9V-1
SDA/SCL
SCL1/SDA1
SDA1.SCL1
C TRAP
P512 20P B/B SOCKT
S S2
Y GND
C TRAP
C S2
GND
L S2
R S2
GND
GND
21PIN-Ys
21PIN-R
21PIN-G
21PIN-B
NC
AV C
SDA
SCL
GND
GND



TO SIGNAL
TO DEF BOAR
21PIN-B
NC
AV C
SDA
SCL
GND
V GND
V AV
C COMB
Y COMB
Y GND
TV V
TV R
TV L
+9V-1
AV-L
AV-R
SYNC-AV1
A MUTE
SGA
SGV
E3 DET
C S2
S S2
L S2
R S2
+5V-3
+5V-2
+9V-2
+9V-1
+12V-2
+27V
D490
Q420
Q421
Q630
Q631
Q632
Q501
Q502
Q503
Q505
Q510
Q516
Q518
Q519
Q204
Q205
Q206
Q201
TA1229N
TEH2026K
TRF4479AJ
TRF4100AZ
PCB
D215 OPEN 1SS131
D216 OPEN 1SS131
D217 OPEN 1SS131
D218 OPEN 1SS131
D219 OPEN 1SS131
D220 OPEN 1SS131
0.65Vp-p
1.2Vp-p
0.5Vp-p
0.4Vp-p
0.45Vp-p
1.9Vp-p
2.3VDC
0.8VDC
CHROMA
C-AV
C.Sync
V-BLK
SDA1.SCL1
B.MASK
HD 15K
VD
HD
Y OUT
U OUT
V OUT
B OUT
G OUT
R OUT
B-Y
R-Y
Y
SCL
SDA
+12V-1
UP CONVERTER UNIT
Y IN
GND
U IN
V IN
+5V-2
HD 15K
VD 50
SCP2
CLAMP
BLK
HD OUT 32K Hz
100HZ E/W
PAL/NTSC
YOKOICHI
H GND
HVCC
H POSI
AFC
H OUT
32K Hz
TO DEF BOARD
ABL SW
V BLK
ABL
G
H
I
J
K
L
1
2
3
4
5
6
7
8
9

## NOTES:

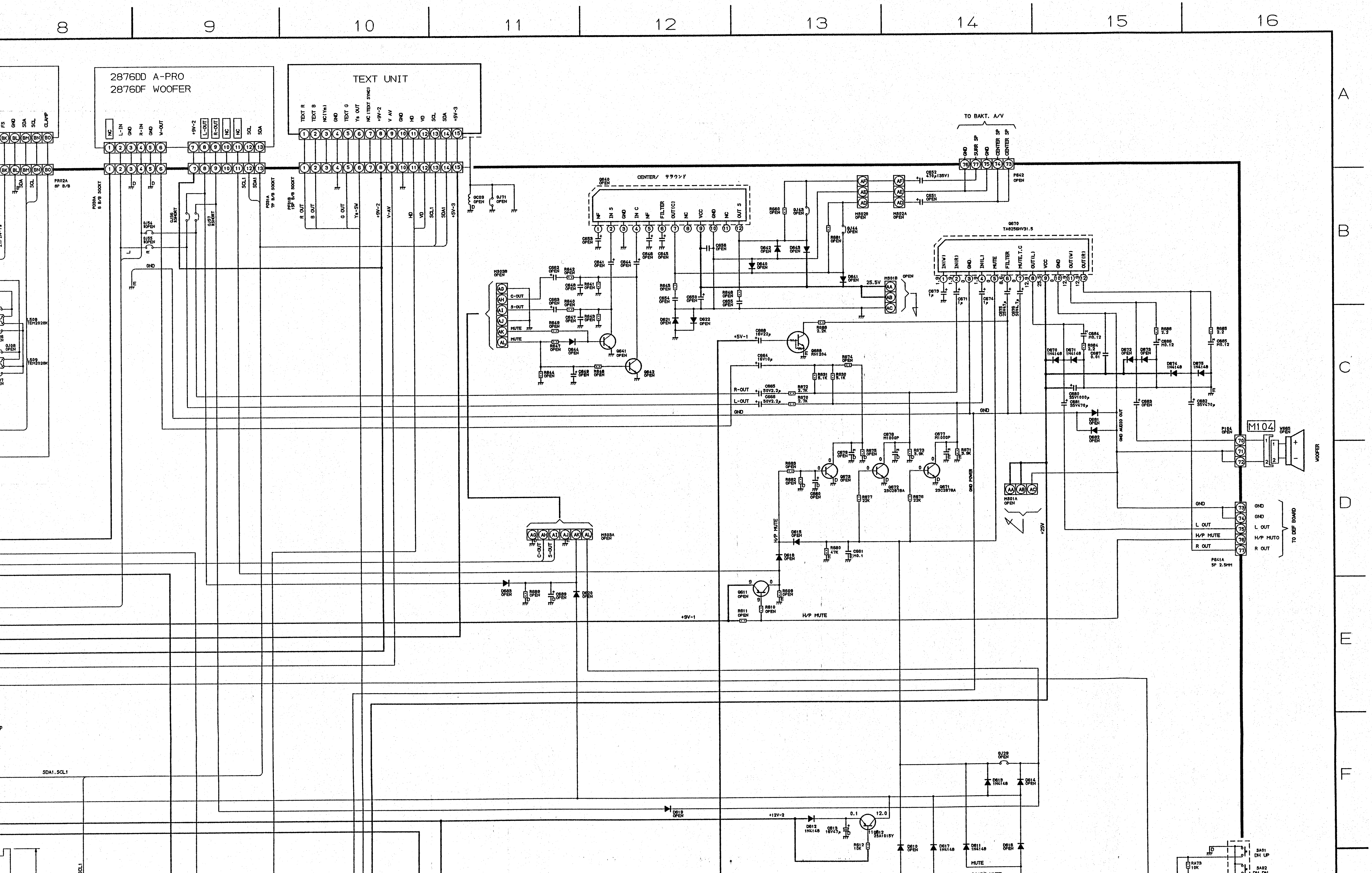
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⬘ : Solder links.

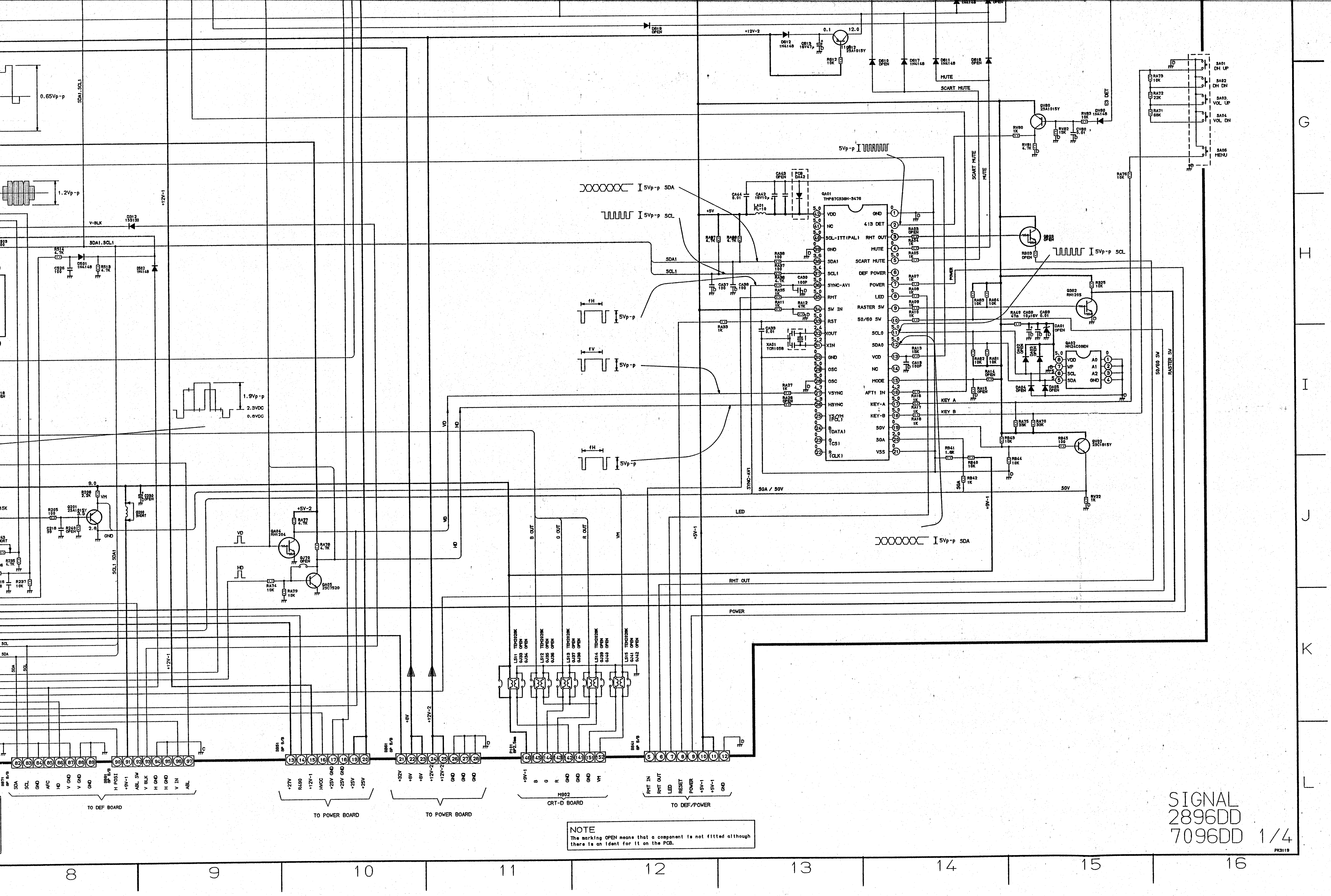
## EXPRESSION

### VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in $\mu$F and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in $\mu$H, and the values less than 1 in H.

2


8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
2876DD A-PRO
2876DF WOOFER
TEXT UNIT
CENTER/ サラウンド
TO BAKT. A/V
M104
WOOFER
TO DEF BOARD
GND
L OUT
H/P MUTE
R OUT
R-OUT
L-OUT
+5V-1
+12V-2
H/P MUTE
MUTE
C-OUT
S-OUT
SDA1.SCL1


QA01
TMP87CS38N-3476
5.0 42 VDD
5.0 41 NC
5.0 40 SCL-ITT(PAL)
0 39 GND
3.6 38 SDA1
3.4 37 SCL1
5.0 36 SYNC-AV1
5.0 35 RMT
34 SW IN
5.0 33 RST
2.4 32 XOUT
2.2 31 XIN
0 30 GND
5.0 29 OSC
5.0 28 OSC
4.7 27 VSYNC
4.3 26 HSYNC
0 25 YS/YM (PCL)
0 24 B (DATA)
0 23 G (CS)
0 22 R (CLK)
0 1 GND
2 4:3 DET
0 3 RMT OUT
0 4 MUTE
5.0 5 SCART MUTE
6 DEF POWER
5.0 7 POWER
0 8 LED
9 RASTER SW
10 50/60 SW
5.0 11 SCL0
5.0 12 SDA0
13 VCD
14 NC
15 MODE
4.2 16 AFT1 IN
5.0 17 KEY-A
5.0 18 KEY-B
0 19 SGV
2.0 20 SGA
0 21 VSS
CA43 OPEN
PCB DA42
CA44 0.01
CA42 16V10μ
LA01 PL-10
+5V
RA87 4.7K
RA88 4.7K
RA38 100
RA37 100
RA36 4.7K
RA35 1K
RA11 1K
RA12 47K
CA30 100P
CA37 100
CA38 100
RA33 1K
CA33 0.01
XA01 TCR1058
RA27 1K
RA28 OPEN
RA03 OPEN
RA04 1K
RA05 1K
RA07 1K
RA08 1K
RA09 1K
RA10 1K
RA13 15K
CA13 100P
RA16 1K
RA17 1K
RA18 1K
RB41 1.8K
RB40 10K
RB42 1K
SDA1
SCL1
SYNC-AV1
SGA / SGV
LED
RMT OUT
POWER
KEY A
KEY B
SCART MUTE
MUTE
SGA
+9V-1
+5V-1
50/60 SW
RASTER SW
5Vp-p SDA
5Vp-p SCL
5Vp-p
fH
fV
D616 OPEN
+12V-2
D612 1N4148
C613 16V47μ
0.1
12.0
Q612 2SA1015Y
R612 10K
D615 OPEN
D617 1N4148
D611 1N4148
D618 OPEN
QV80 2SA1015Y
RV80 1K
RV81 4.7K
RV82 15K
CV80 0.01
RV83 10K
DV80 1N4148
DET
SA01 DH UP
SA02 DH DN
SA03 VOL UP
SA04 VOL DN
SA05 MENU
RA73 10K
RA72 22K
RA71 68K
RA76 10K
QB03 OPEN
RB03 OPEN
Q302 RN1205
RA325 10K
RA63 10K
RA64 10K
RA49 47Ω
CA50 10μ16V
CA59 0.01
DA01 OPEN
QA02 NR24C08BEN
VDD
WP
SCL
SDA
A0
A1
A2
GND
RA62 10K
RA61 10K
RA14 OPEN
RA15 OPEN
DA04 OPEN
DA05 OPEN
RA75 33K
RA76 33K
RB43 10K
RB45 100
QV02 2SC1815Y
RB44 10K
RB49 10K
SGV
RV22 1K
0.65Vp-p
SDA1,SCL1
1.2Vp-p
V-BLK
D312 1SS133
R514 4.7K
D501 1N4148
C526 100
R513 4.7K
D502 1N4148
+12V-1
1.9Vp-p
2.3VDC
0.6VDC
9.0
R206 2.2K
VM
C280 OPEN
Q201 2SA1015Y
R205 100
3.0
2.6
GND
C218 39
R245 OPEN
R235
R237 10K
SCL1 SDA1
+5V-2
RA77 4.7K
VD
HD
QA04 RN1204
QA76 OPEN
RA78 4.7K
RA74 10K
RA79 10K
QA05 2SC7520
LS11 TEH2028K
LS12 TEH2028K
LS13 TEH2028K
LS14 TEH2028K
LS15 TEH2028K
B OUT
G OUT
R OUT
+8V
+12V-2
BB71 8P B/B
82 SDA
83 SCL
84 GND
85 AFC
86 HD
87 V GND
88 V GND
89 GND
BB91 8P B/B
90 H POSI
91 +9V-1
92 ABL SW
93 V BLK
94 H GND
95 H GND
96 V IN
97 ABL
TO DEF BOARD
BB51 8P B/B
13 +27V
14 R490
15 +12V-1
16 HVCC
17 +25V GND
18 +25V GND
19 +25V
20 +25V
TO POWER BOARD
BB61 8P B/B
21 +32V
22 +8V
23 +8V
24 +12V-2
25 +12V-2
26 GND
27 GND
28 GND
TO POWER BOARD
P101 8P2.5mm
146 +9V-1
145 B
144 G
143 R
142 GND
141 GND
151 GND
152 VM
M902
CRT-D BOARD
BB41 8P B/B
5 RMT IN
6 RMT OUT
7 LED
8 RESET
9 POWER
10 +5V-1
11 +5V-1
12 GND
TO DEF/POWER
G
H
I
J
K
L
8
9
10
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12
13
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16
PK3119

NOTE
The marking OPEN means that a component is not fitted although there is an ident for it on the PCB.

SIGNAL
2896DD
7096DD 1/4

3

# SCHEMATIC DIAGRAM MODEL : 2896DD / 7096DD (2/4)

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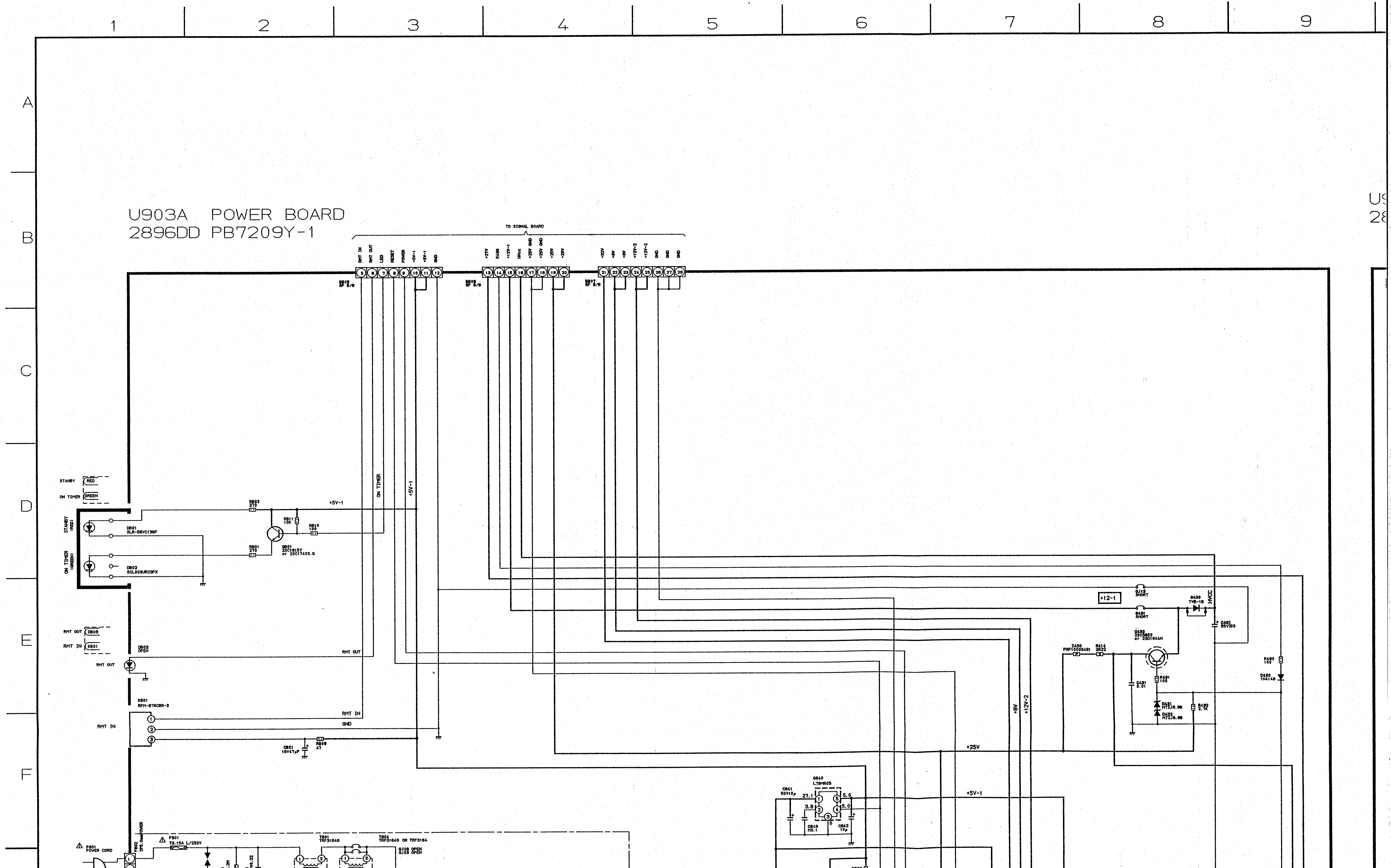
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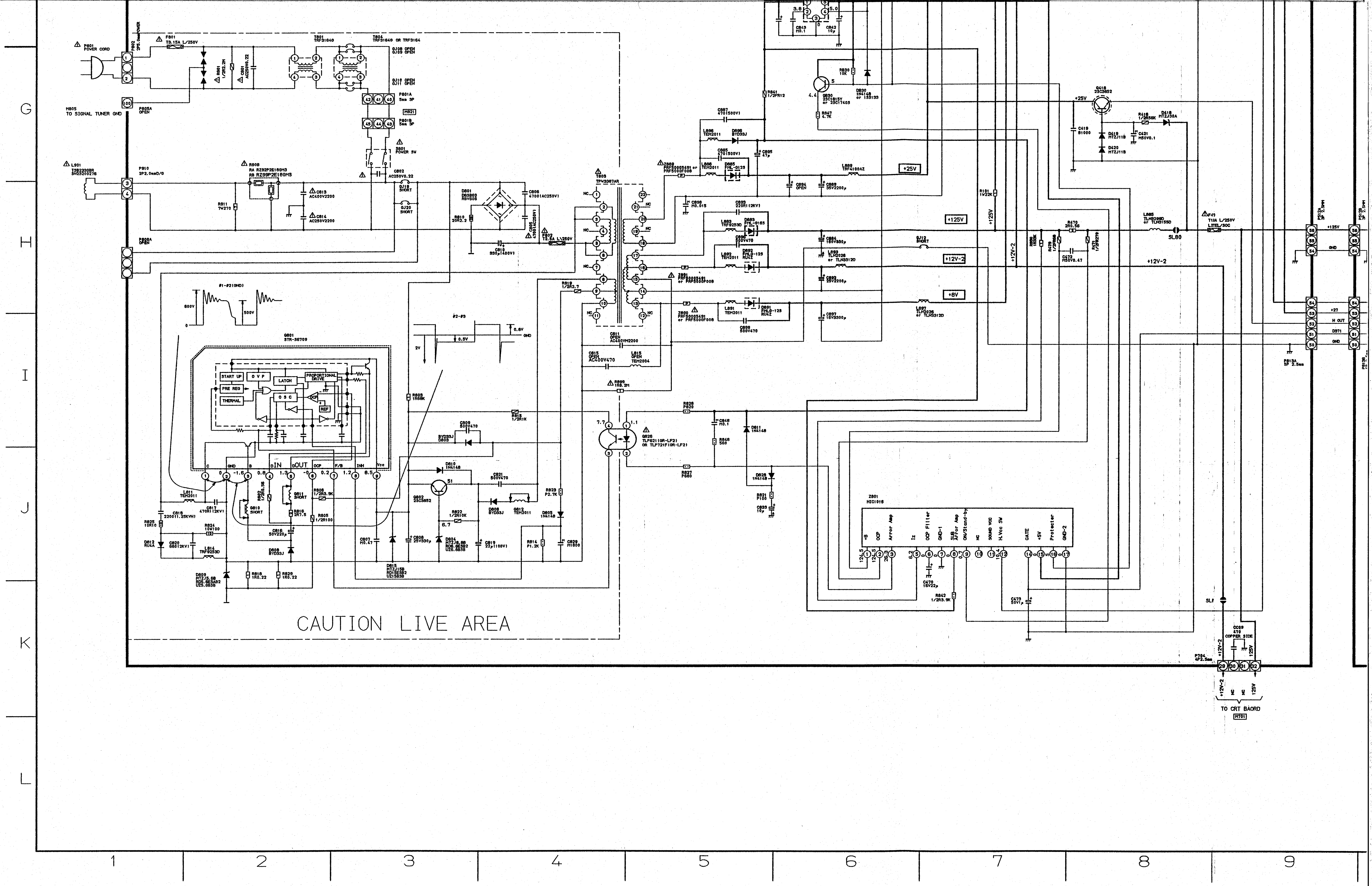
A
B
C
D
E
F
U903A POWER BOARD
2896DD PB7209Y-1
U9
28
TO SIGNAL BOARD
RMT IN
RMT OUT
LED
RESET
POWER
+5V-1
+5V-1
GND
5
6
7
8
9
10
11
12
BB05
BP B/B
+27V
R490
+12V-1
HVcc
+25V GND
+25V GND
+25V
+25V
13
14
15
16
17
18
19
20
BB06
BP B/B
+32V
+8V
+8V
+12V-2
+12V-2
GND
GND
GND
21
22
23
24
25
26
27
28
BB07
BP B/B
STANBY
RED
ON TIMER
GREEN
STANBY (RED)
ON TIMER (GREEN)
DB01
SLR-56VC196F
DB02
SCL003URC3FX
RB02
270
RB01
270
+5V-1
RB11
10K
RB10
100
QB01
2SC1815Y
or 2SC1740S.Q
ON TIMER
+5V-1
RMT OUT
DB03
RMT IN
KB01
DB03
OPEN
RMT OUT
RMT OUT
KB01
RPM-676CBR-S
RMT IN
RMT IN
GND
1
2
3
CB01
16V47μF
RB09
47
+12-1
GJ13
SHORT
G491
SHORT
Q430
TVR-1B
HVCC
C462
35V200
Q430
2SC3852
or 2SD1944H
Z430
PRF10005491
R414
2R22
C491
0.01
R491
100
D431
MTZJ6.8B
D432
MTZJ6.8B
R492
2.7K
R490
100
D490
1N4148
+8V
+12V-2
+25V
+5V-1
Q840
L78MR05
C841
50V10μ
27.1
3.8
5.0
5.0
0
C843
M0.1
C842
10μ
⚠ P801
POWER CORD
P802
2P5.0mmPOWER
⚠ F801
T3.15A L/250V
T801
TRF31640
T804
TRF31640 OR TRF3164
GJ08 OPEN
GJ09 OPEN
V0.22


P801 POWER CORD
F801 T3.15A L/250V
T801 TRF3104
T804 TRF3104 OR TRF3164
P801A 5ea 3P
P801B 5ea 3P
S801 POWER SW
M805 TO SIGNAL TUNER GND
P805A OPEN
L901
P910
R808
C813 AC400V2200
C814 AC250V2200
R811 7V270
C802 AC250V0.22
D801 D6SB60
C806 47001AC250V1
F802 T2.5A L/250V
C812 330μ(400V)
T803 TPW3067AR
#1-P210ND1
600V
500V
#2-#3
0.6V
0.5V
2V
GND
Q801 STR-S6709
START UP
O V P
LATCH
PROPORTIONAL DRIVE
PRE REG
THERMAL
O S C
REF
C
GND
B
IN
OUT
OCP
F/B
INH
Vcc
Q802 2SC3852
D810 1N4148
D803 BYD33J
R803 1R68K
R813 1/2R1K
R823 P2.7K
D805 1N4148
C829 M1800
R814 P1.2K
C819 22μ(100V)
D808 BYD33J
L813 TEH2011
R822 1/2R10K
6.7
D815 HZ7J15B
D809 HZ7J5.6B
R816 1R0.22
R825 1R0.22
L811 TEH2011
C817 470R112KV1
C818 2200(1.25KVH)
R825 10R10
R824 10W100
D812 RU4A
C820 5601(2KV)
L814 TRF9253D
Q810 SHORT
Q811 SHORT
R808 1/2R3.9K
R805 1/2R100
C816 50V220μ
D808 BYD33J
C807 M0.47
C808 25V330μ
D834
Q826 TLP621(GR-LF2) OR TLP721F(GR-LF2)
7.7
1.1
R826 P820
R827 P680
C848 M0.1
R848 560
D811 1N4148
D826 1N4148
R821 P100
C833 10μ
R809 1R3.3M
C815 OPEN AC400V470
L815 OPEN TEH2004
C811 OPEN AC400VH2200
L895 TEH2011
D895 BYD33J
C897 470(500V)
C895 470(500V)
C805 47μ
L886 TEH2011
D885 FML-0125
R888 PRFS0005491 or PRFS000F006
L889 TRF4100AZ
+25V
C894 OPEN
C889 35V2200μ
C898 M0.015
C893 220R112KV1
L893 TRF9253D
D883 FML-0185
C890 200V470
C884 160V330μ
Q812 SHORT
+125V
L892 TEH2011
D892 FMLG-123 RU4Z
L893 TLN2026 or TLN3312D
+12V-2
C895 25V2200μ
R891 PRFS0005491 or PRFS000F006
R890 PRFS0005491 or PRFS000F006
L891 TEH2011
D891 FMLG-123 RU4Z
C896 500V470
C897 16V3300μ
L897 TLN2026 or TLN3312D
+8V
R841 1/2FR12
Q830 2SC1815Y or 2SC1740S
4.4
5
R839 10K
D830 1N4148 or 1SS133
R847 4.7K
C843 M0.1
C842 10μ
3.8
5.0
R101 1W22K
+12V-2
+125V
R470 2R5.56
C472 M50V0.47
R471 1/2FR270
L886 TLN9299D or TLN3155D
F47 T1A L/250V LITEL/50C
5L80
Q418 2SC3852
+25V
C419 B1000
R418 1/2R56K
D418 HTZJ33A
D419 HTZJ11B
C421 M50V0.1
D420 HTZJ11B
+12V-2
+125V
GND
+27
H OUT
D371
GND
P813A 5P 2.5ea
Z801 HIC1016
+B
OCP
Arror Amp
I2
OCP Filter
GND-1
Arror Amp
ON/Stand-by
NC
SOUND VCC
H.Vcc 5V
GATE
+5V
Protecter
GND-2
12.5
6.2
C476 16V22μ
R842 1/2R3.9K
C473 50V1μ
5Lf
CC69 470 COPPER SIDE
P704 4P2.5ea
+12V-2
NC
NC
125V
TO CRT BAORD
M751
CAUTION LIVE AREA
G
H
I
J
K
L
1
2
3
4
5
6
7
8
9

**NOTES:**

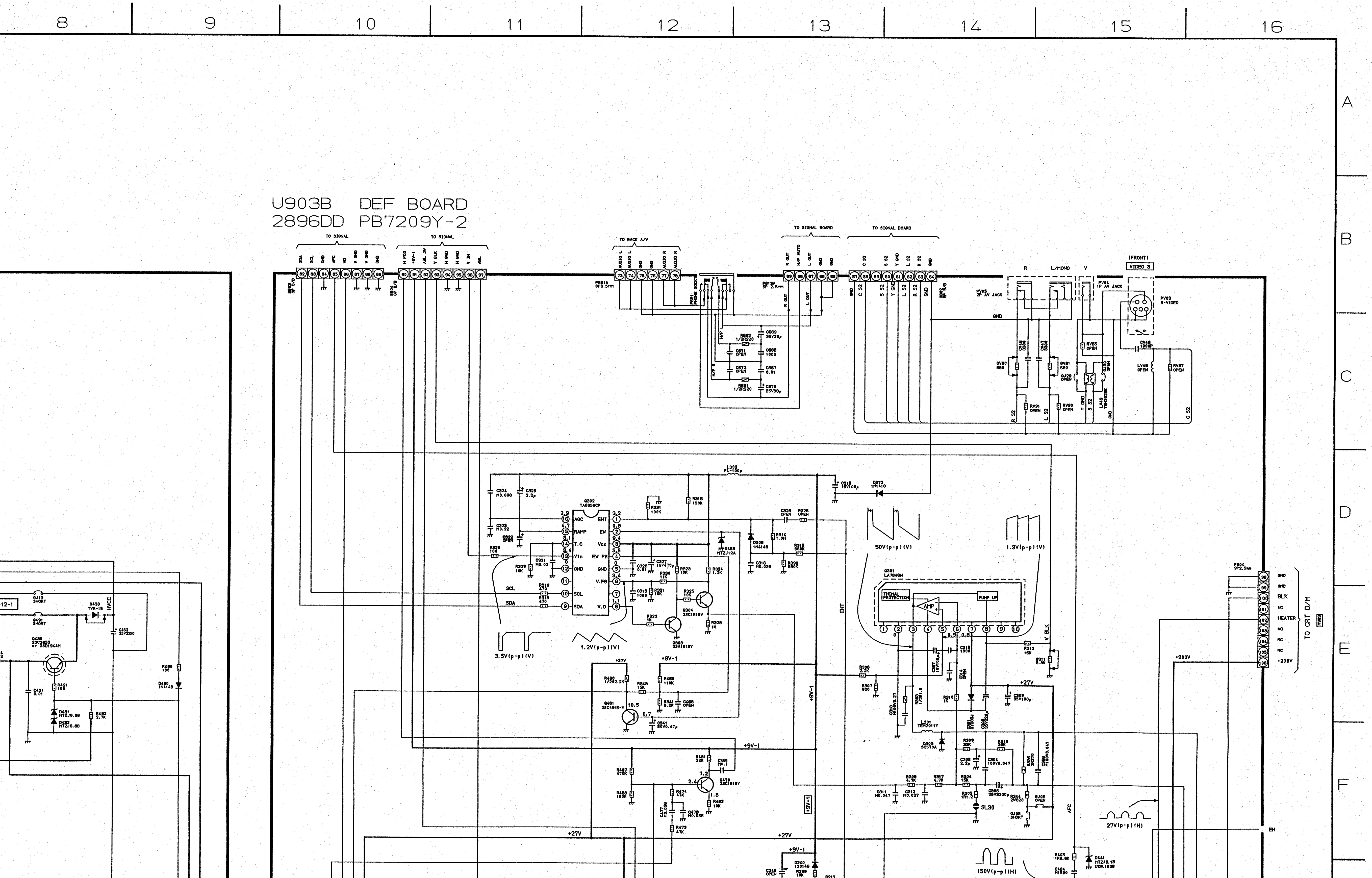
1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⊖ : Solder links.

## EXPRESSION

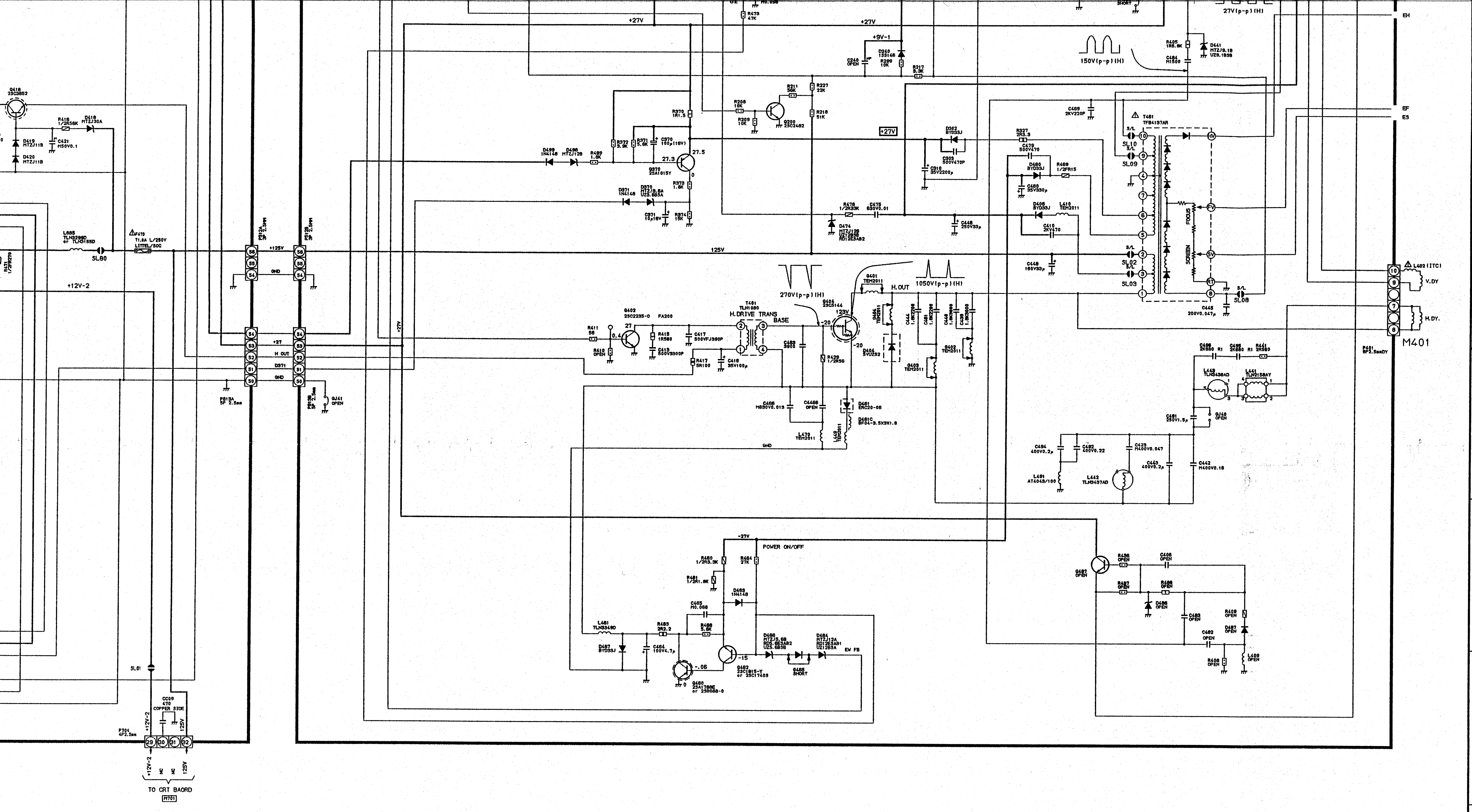
### VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in $\mu$F and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in $\mu$H, and the values less than 1 in H.

4



8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
U903B DEF BOARD
2896DD PB7209Y-2
TO SIGNAL
TO SIGNAL
TO BACK A/V
TO SIGNAL BOARD
TO SIGNAL BOARD
(FRONT)
VIDEO 3
R
L/MONO
V
GND
Q302 TA8859CP
AGC
RAMP
T.C
Vin
GND
SCL
SDA
EHT
EW
Vcc
EW FB
V.FB
V.D
L302 PL-100µ
50V(p-p)(V)
1.3V(p-p)(V)
3.5V(p-p)(V)
1.2V(p-p)(V)
Q301 LA7846N
THERMAL PROTECTION
AMP
PUMP UP
+27V
+9V-1
EHT
V BLK
AFC
SL30
27V(p-p)(H)
150V(p-p)(H)
GND
GND
BLK
NC
HEATER
NC
NC
NC
+200V
+200V
TO CRT D/M
EH
HVCC


+27V
+9V-1
150V(p-p)(H)
27V(p-p)(H)
T451
TFB4137AR
FOCUS
SCREEN
125V
+125V
GND
+12V-2
270V(p-p)(H)
1050V(p-p)(H)
H.OUT
H.DRIVE TRANS
BASE
T401
TLN1080
Q402
2SC2235-O
Q404
2SC5144
Q370
2SA1015Y
Q220
2SC2482
Q416
2SC3852
L402 (ITC)
V.DY
H.DY.
M401
SL01
SL02
SL03
SL08
SL09
SL10
SL80
POWER ON/OFF
-27V
EW FB
Q480
2SA1786E
or 2SB668-O
Q482
2SC1815-Y
or 2SC17403
Q487
OPEN
L481
TLN33490
L442
TLN3437AD
L443
TLN3438AD
L441
TLN2158AY
F470
T1.6A L/250V
LITTEL/30C
P704
4P2.5mm
CC09
470
COPPER SIDE
29
30
31
32
+12V-2
NC
NC
125V
TO CRT BAORD
M701
EH
EF
E3
GND
H OUT
D371

POWER/DEFLECTION
2896DD
7096DD 2/4
PK3120

NOTE
The marking OPEN means that a component is not fitted although there is an ident for it on the PCB.

G
H
I
J
K
L
8
9
10
11
12
13
14
15
16

# SCHEMATIC DIAGRAM MODEL : 2896DD / 7096DD (3/4)

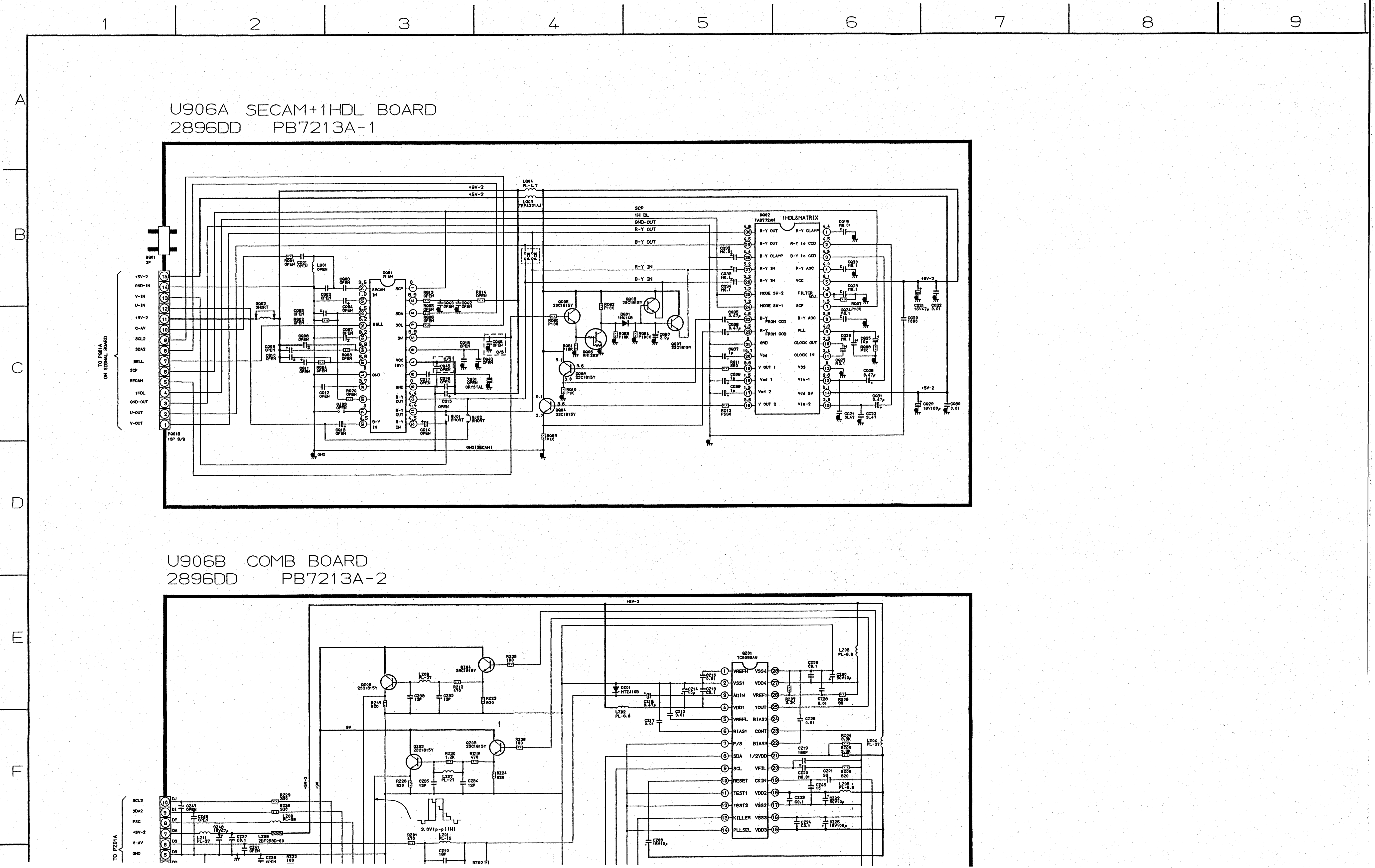
**CAUTION**: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

## OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

## NOTES:

1. D.C. resistance value of a principal transforme gram. These are measured for separated from th
2. The circuits are subject to change without notic
3. ⬤ : Solder links.


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
U906A SECAM+1HDL BOARD
2896DD PB7213A-1
TO P901A ON SIGNAL BOARD
1HDL&MATRIX
U906B COMB BOARD
2896DD PB7213A-2
TO PZ01A
2.0Vp-p(H)

G

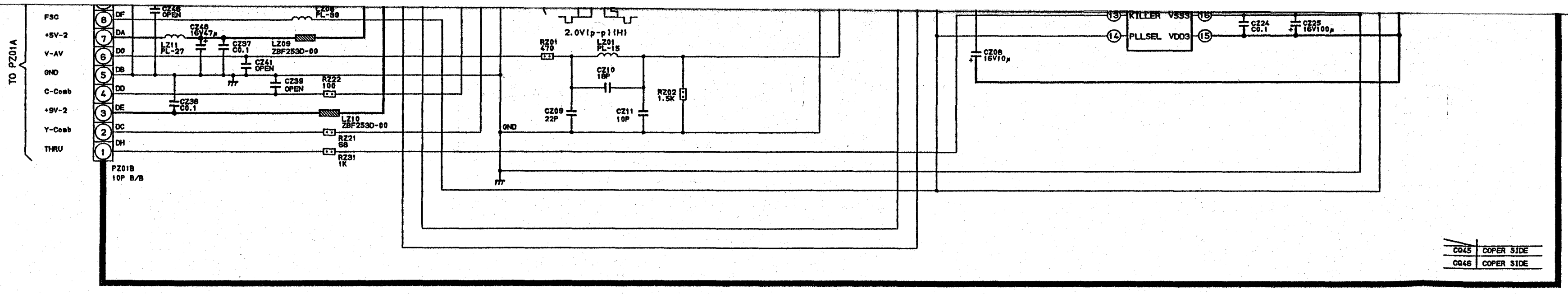
H

I

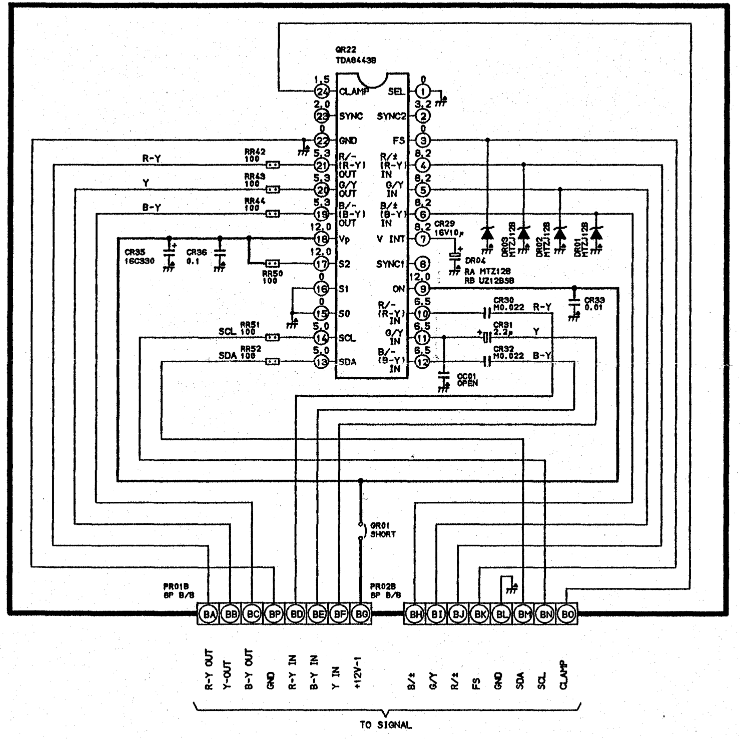
J

K

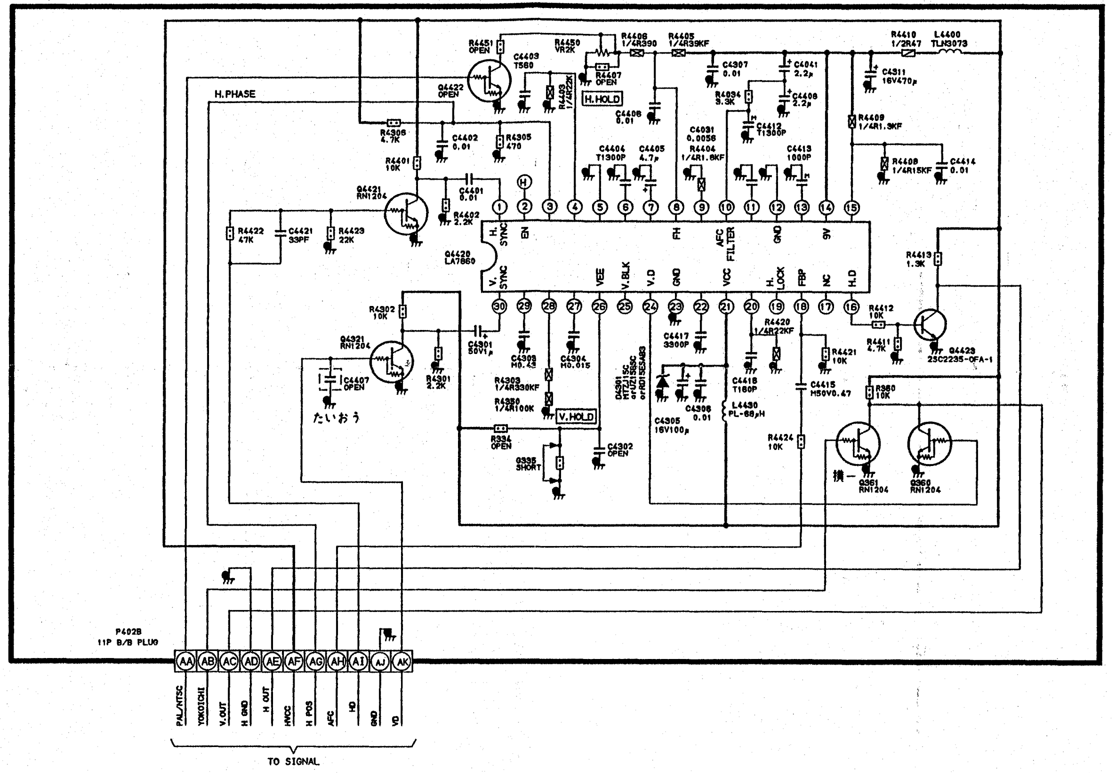
L


TO PZ01A
F3C
+5V-2
V-AV
GND
C-Coab
+5V-2
Y-Coab
THRU
PZ01B
10P B/B
KILLER
PLLSEL
GND
COPER SIDE
COPER SIDE

## U906C YUV SW BOARD
2896DD PB7213A-3


QR22
TDA8443B
CLAMP
SEL
SYNC
SYNC2
GND
FS
R-Y
Y
B-Y
SCL
SDA
R-Y
Y
B-Y
GR01
SHORT
PR01B
8P B/B
PR02B
8P B/B
BA
BB
BC
BP
BD
BE
BF
BG
BH
BI
BJ
BK
BL
BM
BN
BO
R-Y OUT
Y-OUT
B-Y OUT
GND
R-Y IN
B-Y IN
Y IN
+12V-1
B/±
G/Y
R/±
FS
GND
SDA
SCL
CLAMP
TO SIGNAL

## U906D PAL 100HZ BOARD
2896DD PB7213A-4


H.PHASE
H.HOLD
V.HOLD
Q4420
LA7860
Q4423
2SC2235-OFA-1
L4400
TLN3073
たいおう
P402B
11P B/B PLUG
AA
AB
AC
AD
AE
AF
AG
AH
AI
AJ
AK
PAL/NTSC
YOKOICHI
V.OUT
H GND
H OUT
HVCC
H POS
AFC
HD
GND
VD
TO SIGNAL

1 2 3 4 5 6 7 8 9

**NOTES:**

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⊖ : Solder links.

## EXPRESSION

### VALUE OF RESISTOR, CAPACITOR and INDUCTOR

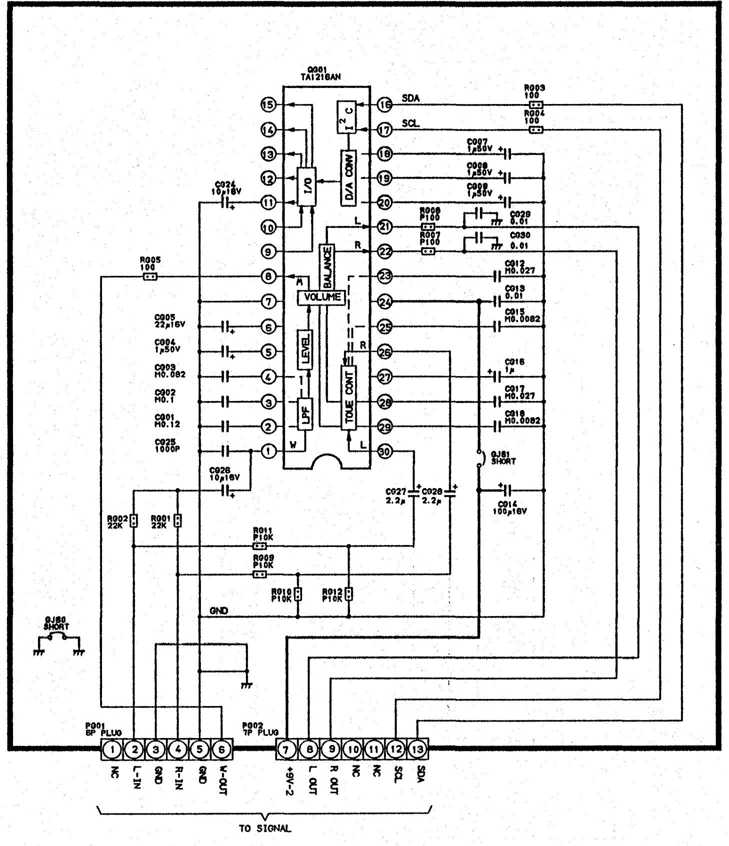
1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in $\mu$F and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in $\mu$H, and the values less than 1 in H.

6

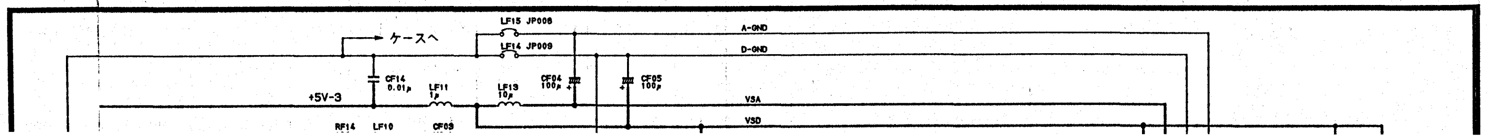
8 9 10 11 12 13 14 15 16

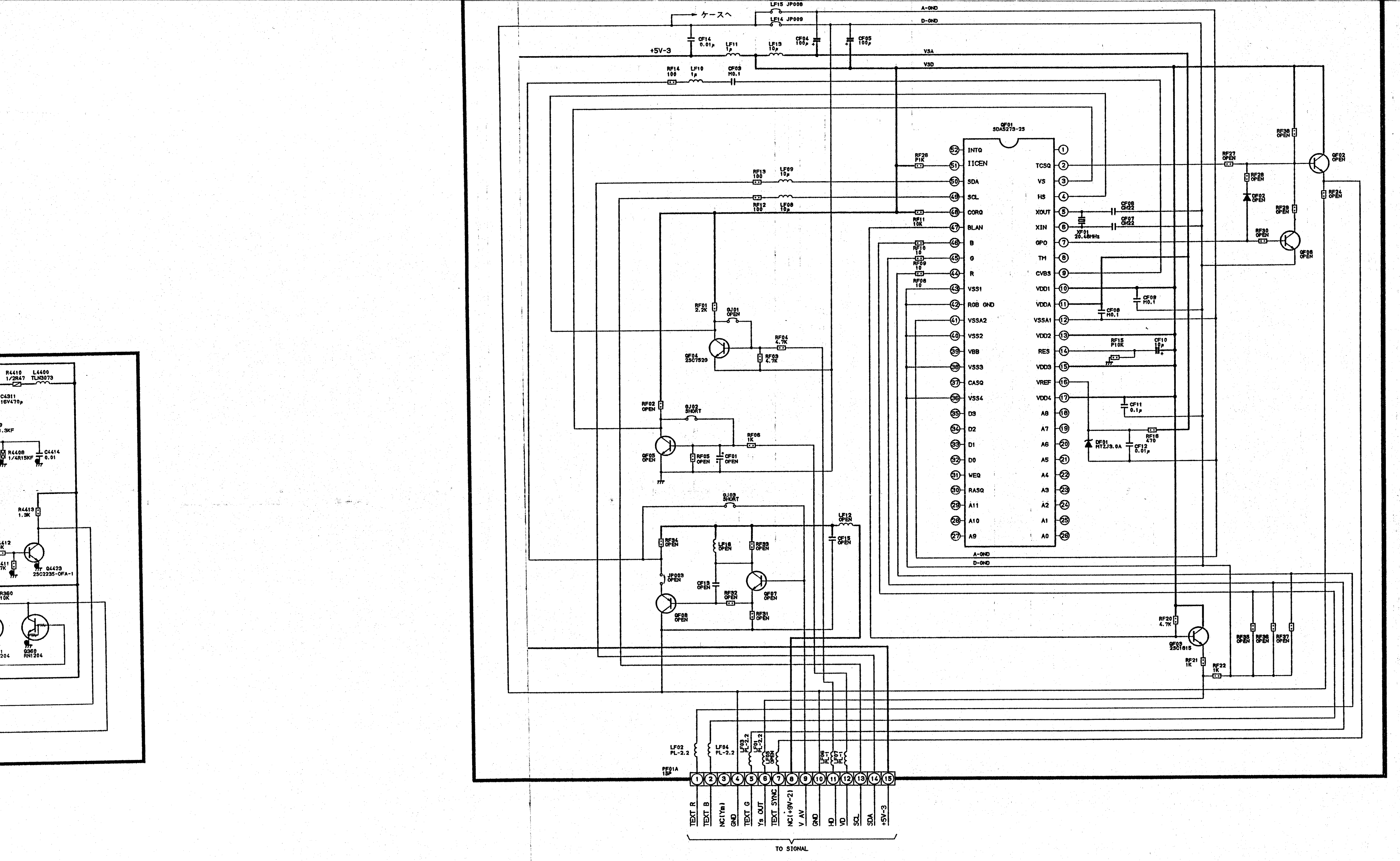
A B C D E F

U902B A PRO/WOOFER BOARD
2896DD PB7208D-2 A-PRO


Q001
TA1216AN
SDA
SCL
I²C
D/A CONV
I/O
BALANCE
VOLUME
LEVEL
LPF
TONE CONT
W
L
R
M
R003 100
R004 100
C007 1μ50V
C008 1μ50V
C009 1μ50V
R008 P100
R007 P100
C029 0.01
C030 0.01
C012 M0.027
C013 0.01
C015 M0.0082
C016 1μ
C017 M0.027
C018 M0.0082
QJ81 SHORT
C014 100μ16V
C027 2.2μ
C028 2.2μ
C024 10μ16V
R005 100
C005 22μ16V
C004 1μ50V
C003 M0.082
C002 M0.1
C001 M0.12
C025 1000P
C026 10μ16V
R002 22K
R001 22K
R011 P10K
R009 P10K
R010 P10K
R012 P10K
GND
QJ80 SHORT
P001 6P PLUG
P002 7P PLUG
1 NC
2 L-IN
3 GND
4 R-IN
5 GND
6 W-OUT
7 +9V-2
8 L OUT
9 R OUT
10 NC
11 NC
12 SCL
13 SDA
TO SIGNAL

U907 TEXT BOARD
2890D PB6513X


ケースへ
LF15 JP008
LF14 JP009
A-GND
D-GND
CF14 0.01μ
LF11 1μ
LF13 10μ
CF04 100μ
CF05 100μ
+5V-3
VSA
VSD
RF14
LF10
CF03


ケースへ
LF15 JP008
LF14 JP009
A-GND
D-GND
+5V-3
CF14 0.01μ
LF11 1μ
LF13 10μ
CF04 100μ
CF05 100μ
VSA
VSD
RF14 100
LF10 1μ
CF03 M0.1
QF01 SDA5273-25
INTQ
IICEN
SDA
SCL
CORQ
BLAN
B
G
R
VSS1
RGB GND
VSSA2
VSS2
VBB
VSS3
CASQ
VSS4
D3
D2
D1
D0
WEQ
RASQ
A11
A10
A9
TCSQ
VS
HS
XOUT
XIN
GPO
TM
CVBS
VDD1
VDDA
VSSA1
VDD2
RES
VDD3
VREF
VDD4
A8
A7
A6
A5
A4
A3
A2
A1
A0
RF26 P1K
RF11 10K
RF10 10
RF09 10
RF08 10
CF06 CH22
CF07 CH22
XF01 20.48MHz
CF08 M0.1
CF09 M0.1
RF15 P10K
CF10 10μ
CF11 0.1μ
RF16 470
DF01 MTZJ3.0A
CF12 0.01μ
RF38 OPEN
RF27 OPEN
QF02 OPEN
RF28 OPEN
DF02 OPEN
RF24 OPEN
RF29 OPEN
RF30 OPEN
QF06 OPEN
RF13 100
LF09 10μ
RF12 100
LF08 10μ
RF01 2.2K
GJ01 OPEN
RF04 4.7K
RF03 4.7K
QF04 2SC7520
RF02 OPEN
GJ02 SHORT
RF06 1K
QF05 OPEN
RF05 OPEN
CF01 OPEN
GJ03 SHORT
LF12 OPEN
CF15 OPEN
RF34 OPEN
LF16 OPEN
RF33 OPEN
JP003 OPEN
CF13 OPEN
QF07 OPEN
RF32 OPEN
QF08 OPEN
RF31 OPEN
RF20 4.7K
QF03 2SC1815
RF21 1K
RF22 1K
RF35 OPEN
RF36 OPEN
RF37 OPEN
LF02 PL-2.2
LF04 PL-2.2
LF03 PL-2.2
LF01 PL-2.2
LF05 OPEN
LF06 PL-1
LF07 PL-1
PF01A 15P
TEXT R
TEXT B
NC(Ym)
GND
TEXT G
Ys OUT
TEXT SYNC
NC(+9V-2)
V AV
GND
HD
VD
SCL
SDA
+5V-3
TO SIGNAL
R4410 1/2R47
L4400 TLN3073
C4311 16V470μ
.3KF
R4408 1/4R15KF
C4414 0.01
R4413 1.3K
Q4423 2SC2235-OFA-1
R360 10K
Q360 RN1204
G
H
I
J
K
L
8
9
10
11
12
13
14
15
16

NOTE
The marking OPEN means that a component is not fitted although there is an ident for it on the PCB.

TEXT/PRO-WOOFER/
SECAM/COMB/YUV-SW/
PAL-100Hz
2896DD
7096DD 3/4

PK3121

7

# SCHEMATIC DIAGRAM MODEL : 2896DD / 7096DD (4/4)

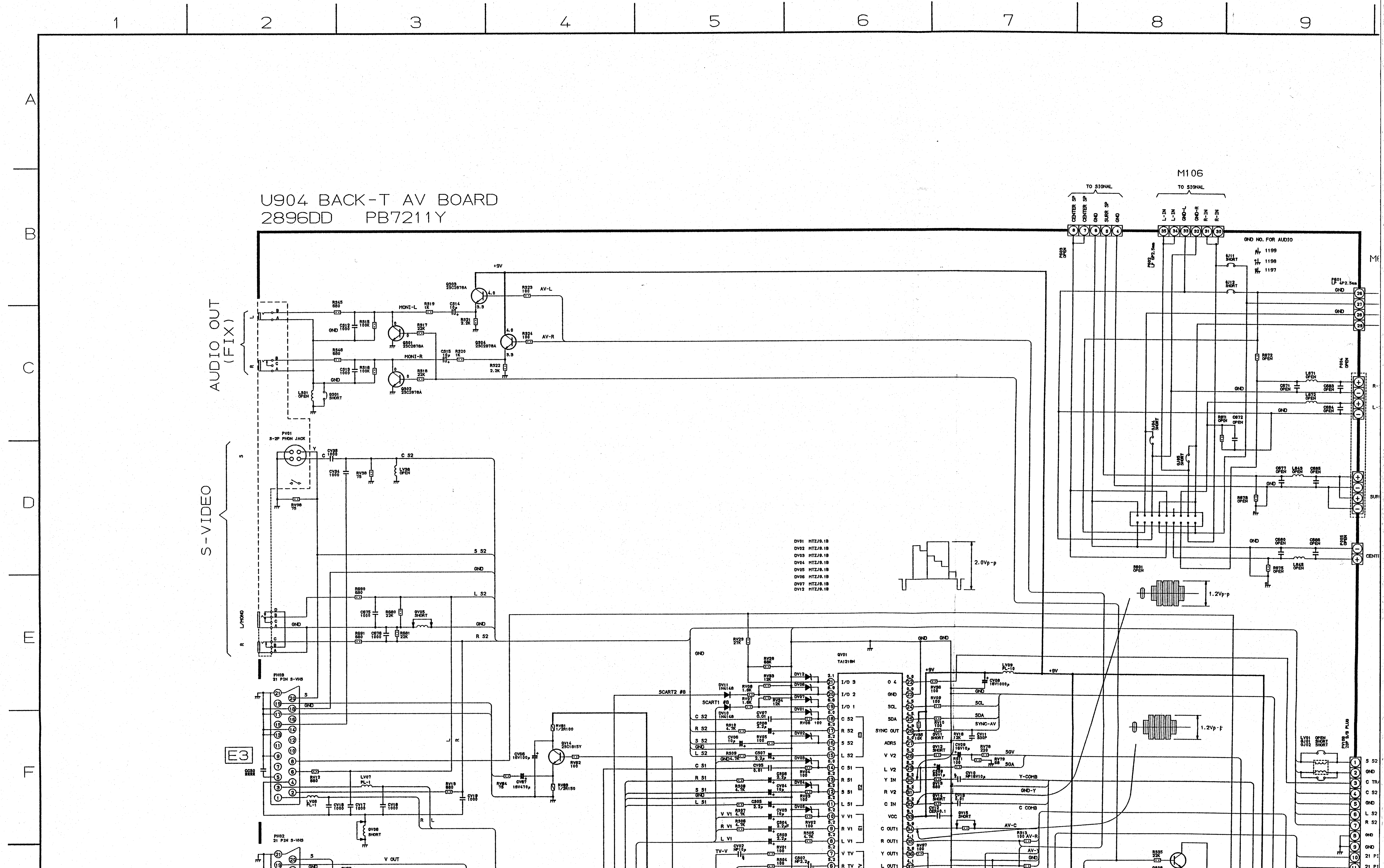
**CAUTION**: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

## OBSERVATION OF VOLTAGES AND WAVEFORMS

1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

## NOTES:

1. D.C. resistance value of a principal transforme gram. These are measured for separated from th
2. The circuits are subject to change without notic
3. ⊖ : Solder links.



1
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3
4
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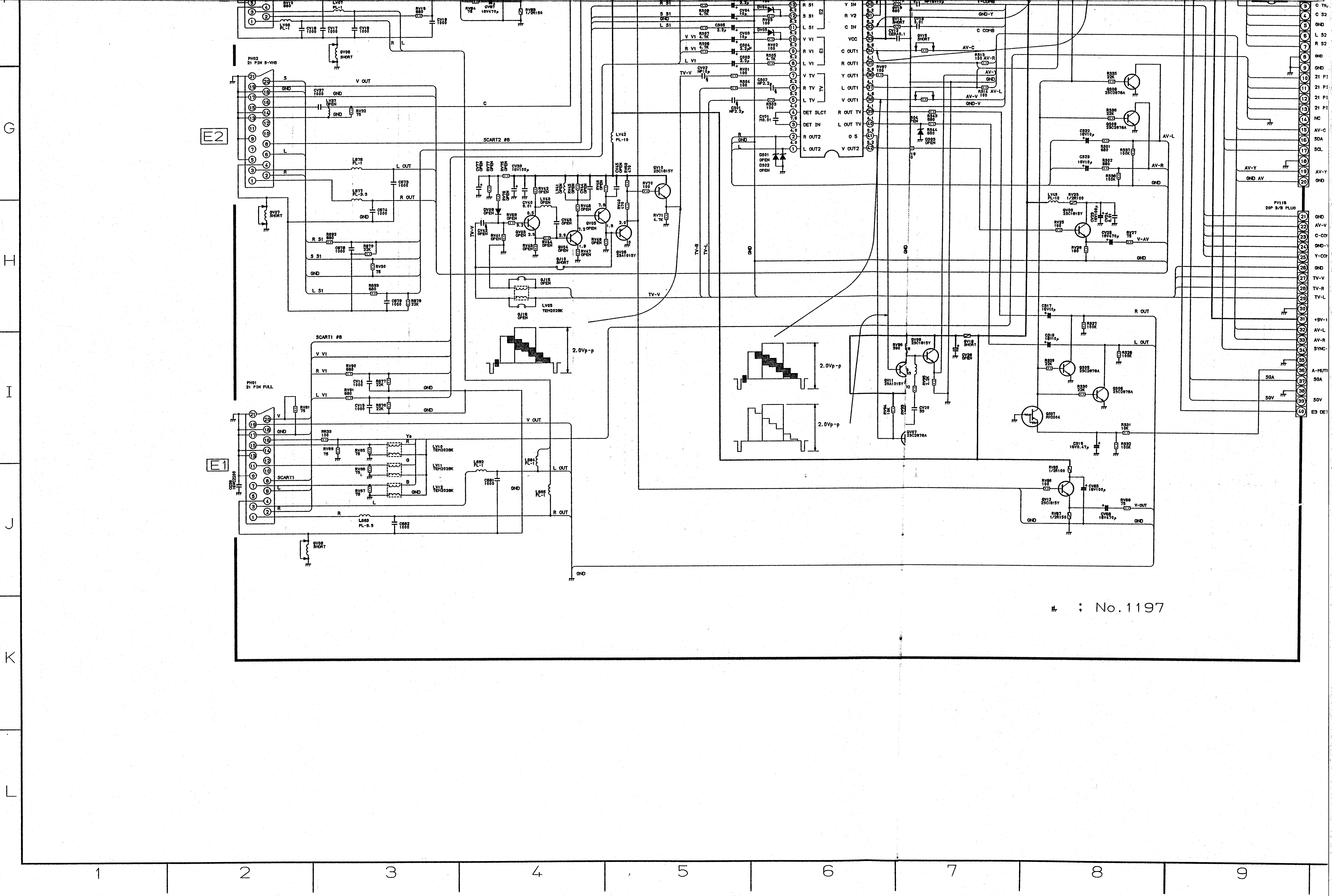
7
8
9
A
B
C
D
E
F
U904 BACK-T AV BOARD
2896DD PB7211Y
AUDIO OUT (FIX)
S-VIDEO
E3
M106
TO SIGNAL
GND NO. FOR AUDIO
MONI-L
MONI-R
AV-L
AV-R
+9V
PV01 S-2P PHON JACK
PH03 21 PIN S-VHS
PH02 21 PIN S-VHS
V OUT
QV01 TA1218N
SCART1
SCART2
2.0Vp-p
1.2Vp-p
1.2Vp-p
Y-COMB
C COMB
SDA
SCL
SYNC-AV


E2
PH02 21 PIN S-VHS
SCART2 #8
E1
PH01 21 PIN FULL
SCART1 #8
V OUT
L OUT
R OUT
TV-V
TV-R
TV-L
2.0Vp-p
2.0Vp-p
2.0Vp-p
PY11B 20P B/B PLUG
*: No.1197
G
H
I
J
K
L
1
2
3
4
5
6
7
8
9

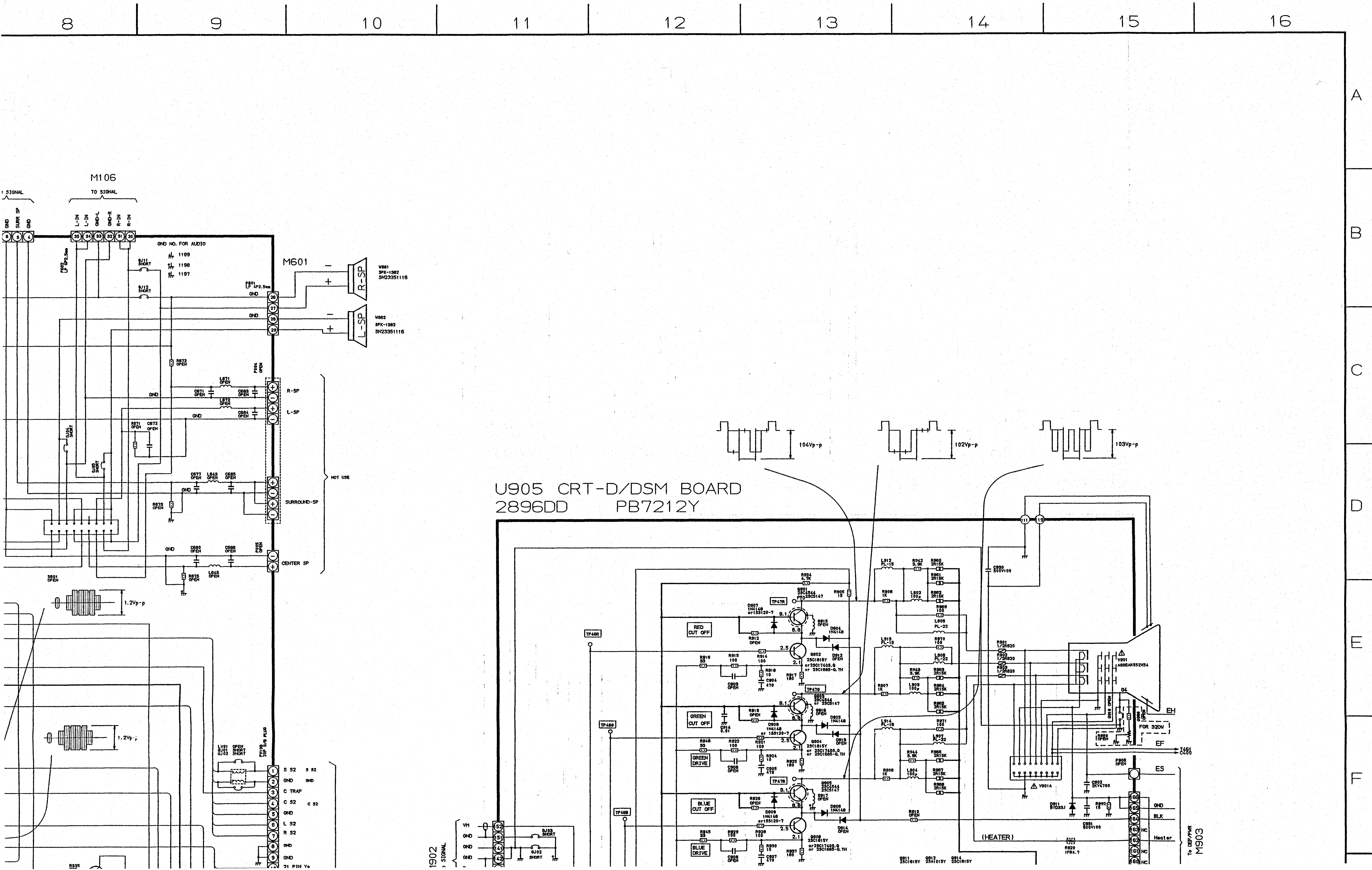
## EXPRESSION

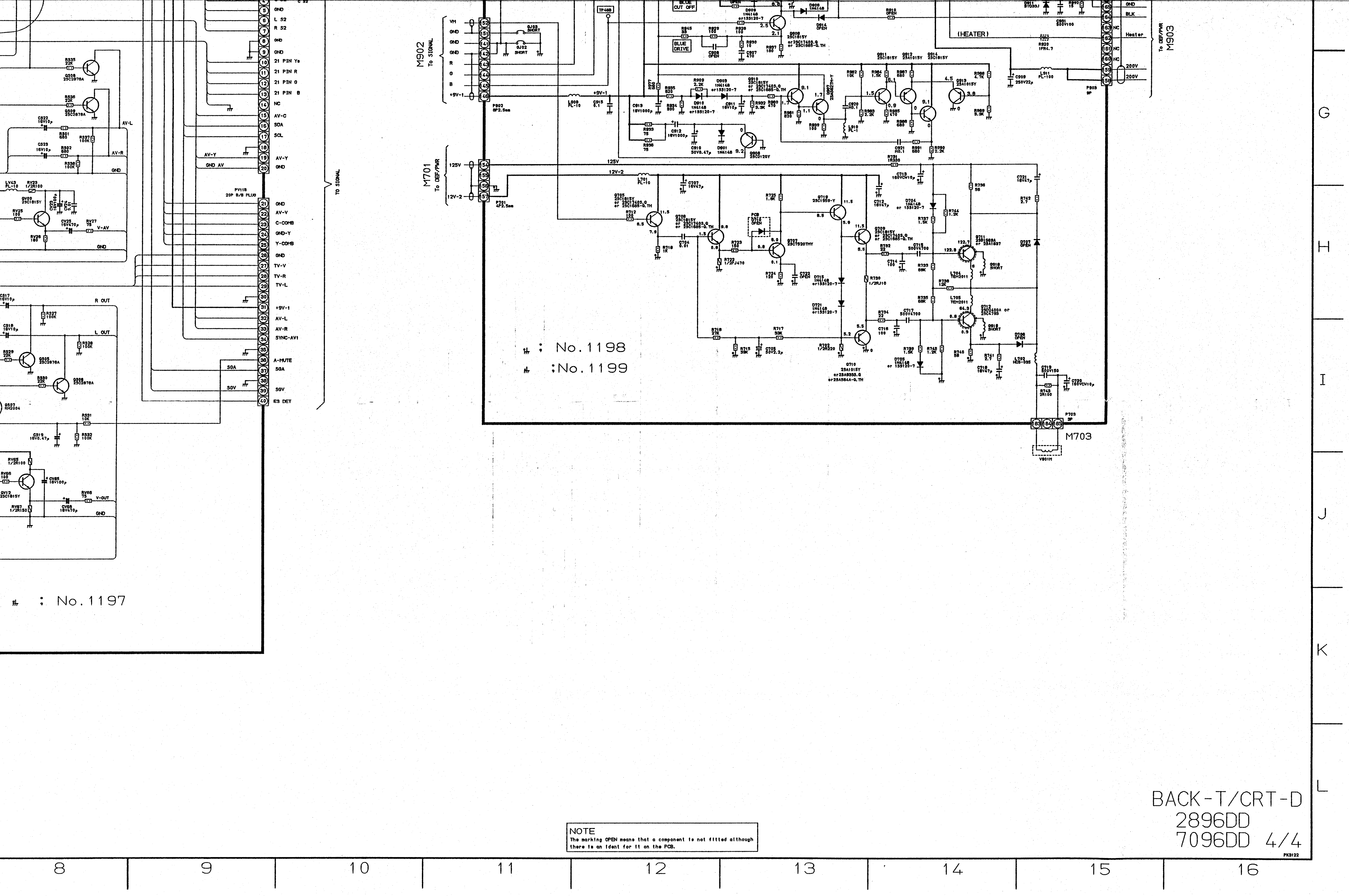
**NOTES:**

1. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.
2. The circuits are subject to change without notice.
3. ⊖ : Solder links.

### VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in $\mu$F and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in $\mu$H, and the values less than 1 in H.


8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
M106
TO SIGNAL
L-IN
GND-L
GND-R
R-IN
GND NO. FOR AUDIO
M601
R-SP
L-SP
V661
SPK-1382
V662
SPK-1382
R-SP
L-SP
SURROUND-SP
CENTER SP
NOT USE
1.2Vp-p
104Vp-p
102Vp-p
103Vp-p
U905 CRT-D/DSM BOARD
2896DD PB7212Y
RED CUT OFF
GREEN CUT OFF
GREEN DRIVE
BLUE CUT OFF
BLUE DRIVE
TP47R
TP47G
TP47B
TP46R
TP46G
TP46B
EH
FOR 32DV
EF
ES
GND
BLK
Heater
NC
(HEATER)
To DEF/PWR
M903
1902
VH
GND
C TRAP
21 PIN Ya


M902
To SIGNAL
M701
To DEF/PWR
M903
To DEF/PWR
M703
TO SIGNAL
BLUE DRIVE
BLUE CUT OFF
(HEATER)
Heater
200V
125V
12V-2
+9V-1
GND
VM
R
G
B
NC
BLK
PV11B
20P B/B PLUG
L 52
R 52
21 PIN Ys
21 PIN R
21 PIN G
21 PIN B
AV-C
SDA
SCL
AV-Y
GND AV
AV-V
C-COMB
GND-Y
Y-COMB
TV-V
TV-R
TV-L
AV-L
AV-R
SYNC-AV1
A-MUTE
SGA
SGV
E3 DET
R OUT
L OUT
V-AV
V-OUT
V801H
TP408
PCB
2SC1815Y
2SA1015Y
2SC2878A
1N4148
TEH2011
OPEN
SHORT
*: No.1198
*: No.1199
*: No.1197
8
9
10
11
12
13
14
15
16
G
H
I
J
K
L

NOTE
The marking OPEN means that a component is not fitted although there is an ident for it on the PCB.

BACK-T/CRT-D
2896DD
7096DD 4/4

PX3122

## SPECIFICATIONS (Representative: 2896DD)

**Input Power Rating:** 145.0 Watts (Normal), AC 220 ~ 240 Volts, 50 Hz

**Aerial Input Impedance:** 75 ohm unbalanced type for VHF, UHF and CATV

**Receiving Channels:**

| System | | VHF | UHF | CATV | |
|---|---|---|---|---|---|
| PAL B/G | CCIR | 2 ~ 12 | 21 ~ 69 | S1 ~ S41 | X ~ Z + 2, |
| PAL D/K | CHINA | 1 ~ 12 | 13 ~ 57 | Z-1 ~ Z-35 | |

PAL, SECAM 50 Hz/60 Hz (For Video Disk playback)
4.43 NTSC (For VCR playback), 3.58 NTSC (For VCR playback)

**Intermediate Frequencies:**
Picture I-F carrier frequency .................. 38.9 MHz (L VL)
Sound I-F carrier frequency
  L System ............................................ 32.4 MHz (L VH, U)/40.97 MHz (L VL)
  B/G System ....................................... 33.4 MHz
  D/K System ....................................... 32.4 MHz

**Picture Tube:** 28 inches, 660 mm (measured on diagonal of viewable picture area)
110° deflection

**Sound Output:** 10 W + 10W (at 10% Distortion, Main)

**Speakers:** 60 mm x 120 mm oval, 2 pcs (Main)

**Aux. Terminals:** 21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm).

**Cabinet:** Table type

**Dimensions:**
Height ...................................................... 569 mm
Width ....................................................... 760 mm
Depth ....................................................... 480 mm

**Mass:** 35.0 kg

Please refer to owner's manual in detail.

**TOSHIBA CORPORATION**
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

Printed by: Schaltungsdienst Lange, Berlin (GERMANY)

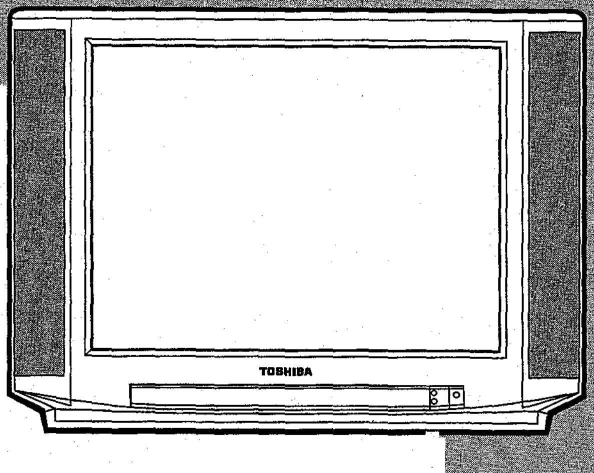
**TOSHIBA**

## SERVICE MANUAL

# COLOUR TELEVISION

C7SS Chassis

# *2876DD, 2876DF*



Jun., 1997 (So)

# TABLE OF CONTENTS

## CHAPTER 1 GENERAL ADJUSTMENTS

SAFETY INSTRUCTIONS .......... 3
SET-UP ADJUSTMENT .......... 4
SERVICE MODE .......... 6
DESIGN MODE .......... 9
ELECTRICAL ADJUSTMENTS .......... 10
CIRCUIT CHECK .......... 15

## CHAPTER 2 SPECIFIC INFORMATIONS

SETTING & ADJUSTING DATA .......... 16
LOCATION OF CONTROLS (TV SET) .......... 18
LOCATION OF CONTROLS (REMOTE CONTROL) .......... 19
SERVICE POSITION .......... 20
CIRCUIT BLOCK DIAGRAM .......... 21
CABINET REPLACEMENT PARTS LIST .......... 22
CHASSIS REPLACEMENT PARTS LIST .......... 23
PC BOARDS BOTTOM VIEW .......... 37
TERMINAL VIEW OF TRANSISTORS .......... 45
SPECIFICATIONS .......... 49

APPENDIX:

CIRCUIT DIAGRAM

# CHAPTER 1 GENERAL ADJUSTMENTS

## SAFETY INSTRUCTIONS

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" INSTRUCTIONS BELOW.

### X-RAY RADIATION PRECAUTION

1. Excessive high voltage can produce potentially hazardous X-RAY RADIATION. To avoid such hazards, the high voltage must not be above the specified limit. The nominal value of the high voltage of this receiver is Ⓐ kV at zero beam current (minimum brightness) under a Ⓒ V AC power source. The high voltage must not, under any circumstances, exceed Ⓑ kV.

   Refer to table-1 for high voltage Ⓐ, Ⓑ & AC voltage Ⓒ.
   (See SETTING & ADJUSTING DATA on page 16)

   Each time a receiver requires servicing, the high voltage should be checked following the HIGH VOLTAGE CHECK procedure in this manual. It is recommended that the reading of the high voltage be recorded as a part of the service record. It is important to use an accurate and reliable high voltage meter.
2. The only source of X-RAY RADIATION in this TV receiver is the picture tube. For continued X-RAY RADIATION protection, the replacement tube must be exactly the same type tube as specified in the parts list.
3. Some part in this receiver have special safety-related characteristics for X-RAY RADIATION protection. For continued safety, parts replacement should be undertaken only after referring to the PRODUCT SAFETY NOTICE below.

### SAFETY PRECAUTION

WARNING : Service should not be attempted by anyone unfamiliar with the necessary precautions on this receiver. The following are the necessary precautions to be observed before servicing this chassis.

1. An isolation transformer should be connected in the power line between the receiver and the AC line before any service is performed on the receiver.
2. Always discharge the picture tube anode to the CRT conductive coating before handling the picture tube. The picture tube is highly evacuated and if broken, glass fragments will be violently expelled. Use shatter proof goggles and keep picture tube away from the unprotected body while handling.
3. When replacing a chassis in the cabinet, always be certain that all the protective devices are put back in place, such as; nonmetallic control knobs, insulating covers, shields, isolation resistor-capacitor network etc.

### PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These characteristics are often passed unnoticed by a visual inspection and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the international hazard symbols on the schematic diagram and the parts list.
Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-ray radiation or other hazards.

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

# SET-UP ADJUSTMENT

■ The following adjustments should be made when a complete realignment is required or a new picture tube is installed. Perform the adjustments in order as follows :

1. Color Purity
2. Convergence
3. White Balance

Note: The PURITY/CONVERGENCE MAGNET assembly and rubber wedges need mechanical positioning.
Refer to figure 1.

* There are no adjustment of purity and convergence in some picture tube (Unified with purity magnet)

COLOR PURITY ADJUSTMENT

NOTE : Before attempting any purity adjustments, the receiver should be operated for at least fifteen minutes.

1. Demagnetize the picture tube and cabinet using a degaussing coil.
2. Set the brightness and contrast to maximum.
3. Use a green raster from among the built-in test signals.
4. Loosen the clamp screw holding the yoke and slide the yoke backward or forward to provide vertical green belt (zone) in the picture screen.
5. Remove the Rubber Wedges.
6. Rotate and spread the tabs of the purity magnet (See figure 2.) around the neck of the picture tube until the green belt is in the center of the screen. At the same time, enter the raster vertically.
7. Slowly move the yoke forward or backward until a uniform green screen is obtained. Tighten the clamp screw of the yoke temporarily.
8. Check the purity of the red and blue raster.

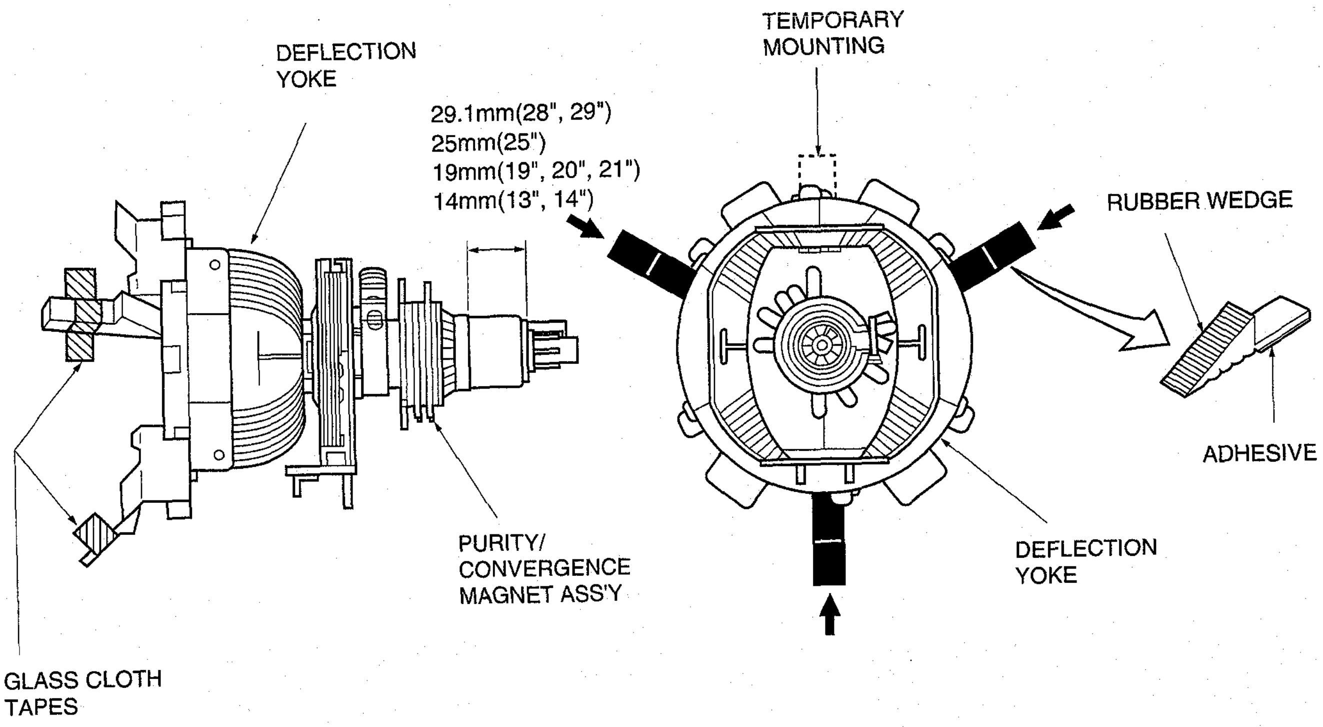

DEFLECTION YOKE
29.1mm(28", 29")
25mm(25")
19mm(19", 20", 21")
14mm(13", 14")
TEMPORARY MOUNTING
RUBBER WEDGE
ADHESIVE
PURITY/ CONVERGENCE MAGNET ASS'Y
DEFLECTION YOKE
GLASS CLOTH TAPES

**Figure 1.**

## CONVERGENCE ADJUSTMENTS

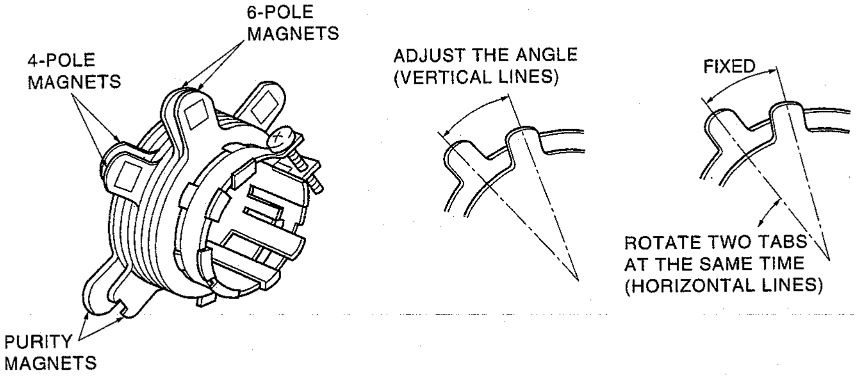
NOTE: Before attempting any convergence adjustments, the receiver should be operated for at least fifteen minutes.

### ■ CENTER CONVERGENCE ADJUSTMENT

1. Use the cross-dot pattern from among the built-in test signals.
2. Set the brightness and contrast for well defined pattern.
3. Adjust two tabs of the 4-Pole Magnets to change the angle between them (See figure 2.) and superimpose red and blue vertical lines in the center area of the picture screen.
4. Turn the both tabs at the same time keeping the angle constant to superimpose red and blue horizontal lines at the center of the screen.
5. Adjust two tabs of 6-Pole Magnets to superimpose red/blue line and green one. Adjusting the angle affects the vertical lines and rotating both magnets affects the horizontal lines.
6. Repeat adjustments 3, 4, 5 keeping in mind red, green and blue movement, because 4-Pole Magnets and 6-Pole Magnets have mutual interaction and make dot movement complex.

### ■ CIRCUMFERENCE CONVERGENCE ADJUSTMENT

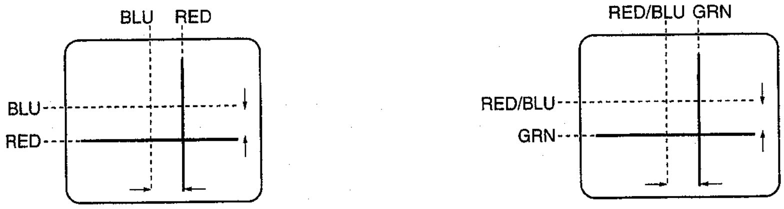
1. Loosen the clamping screw of deflection yoke slightly to allow the yoke to tilt.
2. Temporarily put a wedge as shown in figure 1. (Do not remove cover paper on adhesive part of the wedge.)
3. Tilt front of the deflection yoke up or down to obtain better convergence in circumference. (See figure 3.) Push the mounted wedge into the space between picture tube and the yoke to fix the yoke temporarily.
4. Put other wedge into bottom space and remove the cover paper to stick.
5. Tilt front of the yoke right or left to obtain better convergence in circumference. (See figure 3.)
6. Keep the yoke position and put another wedge in either upper space. Remove cover paper and stick the wedge on picture tube to fix the yoke.
7. Detach the temporarily mounted wedge and put it in another upper space. Stick it on picture tube to fix the yoke.
8. After fixing three wedges, recheck overall convergence. Tighten the screw firmly to fix the yoke and check the yoke is firm.
9. Stick three adhesive tapes on wedges as shown in figure 1.


6-POLE MAGNETS
4-POLE MAGNETS
PURITY MAGNETS
ADJUST THE ANGLE (VERTICAL LINES)
FIXED
ROTATE TWO TABS AT THE SAME TIME (HORIZONTAL LINES)

CONVERGENCE MAGNET ASSEMBLY

ADJUSTMENT OF MAGNETS

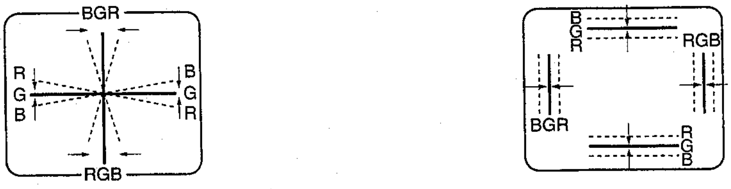
**Figure 2.**



4-POLE MAGNETS MOVEMENT

6-POLE MAGNETS MOVEMENT

Center Convergence by Convergence Magnets



INCLINE THE YOKE UP (OR DOWN)

INCLINE THE YOKE RIGHT (OR LEFT)

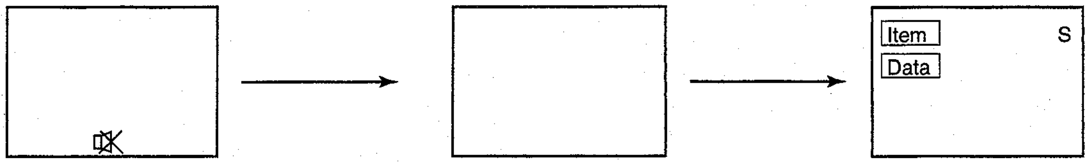
Circumference Convergence by DEF Yoke

**Figure 3.** Dot Movement Pattern

# SERVICE MODE

## 1. ENTERING TO SERVICE MODE

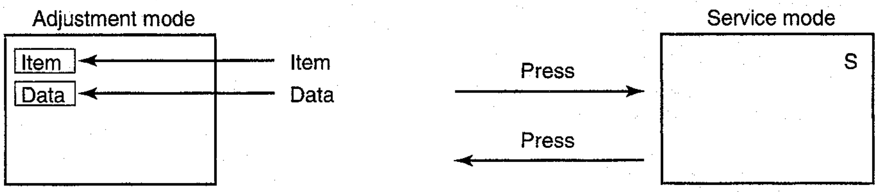
1) Press 🔇 button once on Remote Control.
2) Press 🔇 button again to keep pressing.
3) While pressing the 🔇 button, press MENU button on TV set.



(Service mode display)

## 2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on TV.



## 3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

| | | |
|---|---|---|
| A single horizontal line ON/OFF: | - / - - button (on Remote) or -⊕ button (on TV) | |
| Test signal selection : | -⊕ button (on Remote) | |
| Selection of the adjustment items : | CHANNEL ▲/▼ (on TV & Remote) | |
| Change of the data value : | VOLUME ⊿ +/– (on TV & Remote) | |
| Adjustment menu mode ON/OFF : | MENU button on TV | |
| Initialization of the memory (QA02) : | CALL + CHANNEL button on TV (▲) | |
| Reset the count of operating protect circuit to "00": | CALL + CHANNEL button on TV (▼) | |
| "RCUT" selection : | 1 button | |
| "GCUT" selection : | 2 button | |
| "BCUT" selection : | 3 button | |
| "CNTX" (or "SCNT") selection : | 4 button | |
| "COLC" selection : | 5 button- - - - | Color thickness correction |
| "TNTC" selection : | 6 button | note: Displayed differently as shown below, depending on the setting of the receiving color system. |
| Test audio signal ON/OFF (1kHz) : | 8 button | COLP (PAL)<br>COLC (NTSC)<br>COLS (SECAM) |
| Self diagnostic display ON/OFF : | 9 button | |

CAUTION : Never try to perform initialization unless you have changed the memory IC.

## 4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

   Refer to table-2 for preset data of adjustment mode.
   (See SETTING & ADJUSTING DATA on page 16)

## 5. ADJUSTING THE DATA

1) Pressing of VOLUME ◿ +/– button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

## 6. EXIT FROM SERVICE MODE

1) *Pressing POWER button to turn off the TV once.*

## ■ INITIALIZATION OF MEMORY DATA OF QA02

After replacing QA02, the following initialization is required.

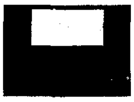
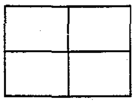
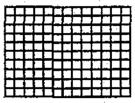
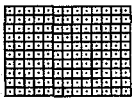
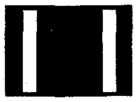
1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of QA02 has been complated.
3. Check the picture carefully. If necessary, adjust any adjustment item above.
   Perform "Auto search Memory" on the owner's manual.

CAUTION: Never attempt to initialize the data unless QA02 has been replaced.

## 7. TEST SIGNAL SELECTION

Every pressing of -⊖ button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.

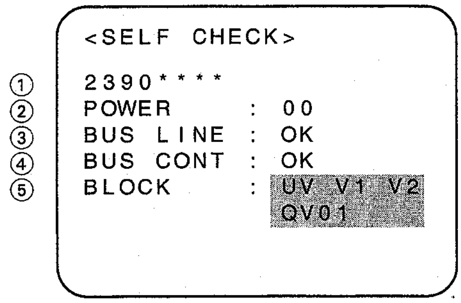
Signal off ——→ NTSC signals (14 patterns)
↑—— PAL signals (14 patterns) ←┘

| Signals | Picture |
|---|---|
| • Red raster<br>• Green raster<br>• Blue raster<br>• All Black<br>• All White | |
| • Black & White |  |
| • Black cross-bar<br>• White cross-bar<br>• Black cross-bar on green raster |  |
| • Black cross-hatch<br>• White cross-hatch |  |
| • Black cross-dot<br>• White cross-dot |  |
| • H signal (white)<br>• H signal (black) |  |

* The signals marked with ▨ are not usable to display in the Test signal for some model.

## SELF DIAGNOSTIC FUNCTION

1) Press "9" button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC's are executed properly.
2) During diagnosis, the following displays are shown.



```
   <SELF CHECK>

①  2390****
②  POWER      :  00
③  BUS LINE   :  OK
④  BUS CONT   :  OK
⑤  BLOCK      :  UV V1 V2
                 QV01
```

① Part number of microcomputer (QA01)

② Operation number of protecting circuit ----"00" is normal.
When indication is other than "00", overcurrent apts to flow, and circuit parts may possibly be damaged.

③ BUS LINE CHECK ----"OK" is normal.
"SCL(SCL1)-GND" .............. SCL-GND short circuit
"SDA(SDA1)-GND" ............. SDA-GND short circuit
"SCL(SCL1)-SDA (SDA1)" ... SCL-SDA short circuit

④ BUS CONT ----"OK" is normal.
When indication shows "Q ○○○ NG", the device with the number may possibly be damaged.

⑤BLOCK
UV : TV reception mode
V1 : VIDEO 1 input mode (⊖1)
V2 : VIDEO 2 input mode (⊖2)

Indicated color of mode now selected : Green and Red
Indicated color of other modes : White

Green : Normal
Red : The microcomputer operates to provide judgement of no video signal. The red color is still indicated though the signal is input, failure may exist in input signal line including QV01.
QV01 : In case of indication green ---Normal
In case of indication red with input signal----
Failure may exist in output line including QV01.

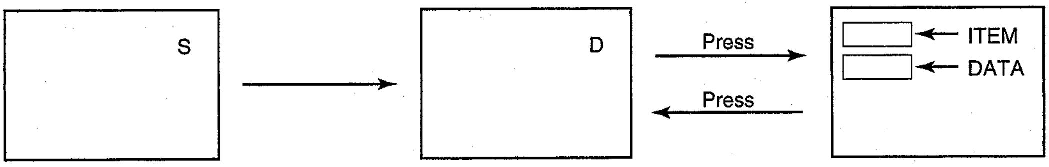
NOTE: Component which controls character display on screen is ICF01 (TELETEXT IC.). If this display function fails to operate due to damage in ICF01, self diagnosis procedure is as follows.
(1) In case that power indicator is blinking with interval of 0.5 seconds; it means protecting circuit (Current limiter) is operating, and circuit components may possibly be damaged. Check related components.
(2) In case that power indicator is blinking with interval of 1 second; Protecting circuit does not operate, but a part of Bus line does not operate normally. Check Bus line.

* The items marked with ▨ are not usable to display in the SELF DIAGNOSTIC FUCTION for some model.

# DESIGN MODE

## 1. ENTERING TO DESIGN MODE

1) Select the Service mode. 2) While pressing 🔇 (or CALL) button on Remote and press MENU button on TV. 3) Press MENU button on TV.



(Design mode) (Adjustment mode)

When QA01 is initialized, items "OPT0" and "OPT1" of DESIGN MODE are set to the data of the representative model of this chassis family.
Therefore, because ON-SCREEN specification remains in the state of the representative of model. This model is required to reset the data of items "OPT0" and "OPT1".

## 2. SELECTING THE ADJUSTING ITEMS

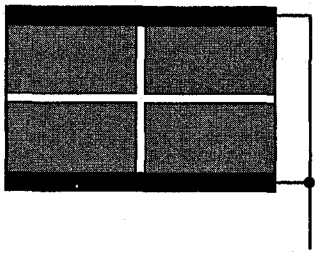
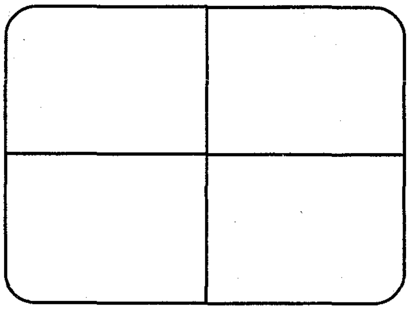
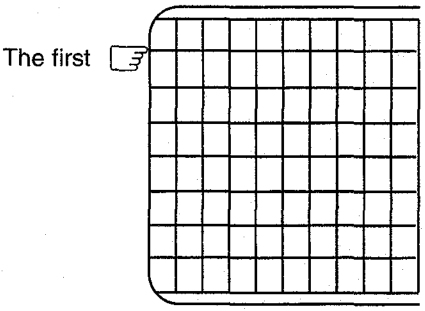
Every pressing of CHANNEL ▼ button in the design mode changes the adjustment items in the order of table-3.

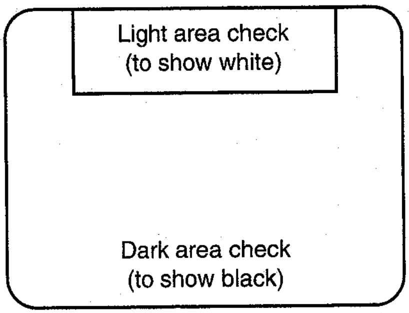
Refer to table-3 for data of design mode.
(See SETTING & ADJUSTING DATA on page 17)

## 3. ADJUSTING THE DATA

Pressing of VOLUME ▲ or ▼ (⊿ +/–) button will change the value of data.

# ELECTRICAL ADJUSTMENTS

| ITEM | ADJUSTMENT PROCEDURE |
|---|---|
| FOCUS VR ADJ. | 1. Enter the service mode, then select any register item.<br>2. Press the TV/VIDEO button on the Remote until the black cross-bar pattern appears on the screen.<br>3. Adjust the FOCUS control (on T461) for well defined scanning lines on the picture screen. |
| SUB-BRIGHTNESS (BRTC)<br>Note: Constrict the picture height until the vertical retrace line appears adjusting the item HIT (HEIGHT). | 1. Set CONTRAST to minimum, and BRIGHTNESS to center by adjusting user controls.<br>2. Set the TV in service mode to get white cross-bar of inside pattern.<br>3. Select BRTC (brightness correction), and adjust the ⊿ – /+ button to reduce the value so that white portion of inside pattern slightly light.<br>4. Adjust ⊿ – /+ button to increase the data value of BRTC, and set it just before the difference between the belt of vertical retrace and the border of black portion of inside pattern is visible. After that, return vertical height and contrast.<br><br> |
| HORIZONTAL POSITION ADJUSTMENT (HPOS)<br>VERTICAL POSITION ADJUSTMENT (VPOS) | 1. Set the TV in service mode, and get black or white cross-bar signal with VIDEO button on remote hand unit.<br>2. Select either HPOS (Horizontal picture phase) or VPOS (Vertical picture phase) with CHANNEL ▲, ▼ buttons, and adjust horizontal or vertical picture position in the center of screen with VOLUME ⊿ – /+ buttons.<br> |
| VERTICAL AMPLITUDE ADJUSTMENT (HIT) | 1. Set the TV in service mode, and get black or white cross-hatch signal with VIDEO button on remote hand unit.<br>2. Select HIT (Vertical amplitude) with CHANNEL ▲, ▼ buttons, and adjust vertical amplitude with VOLUME ⊿ – /+ buttons so that vertical amplitude lacks a little.<br>3. Adjust vertical amplitude with VOLUME ⊿ – /+ buttons so that the first bar on cross-hatch signal touches edge of screen.<br><br> |

| ITEM | ADJUSTMENT PROCEDURE |
|---|---|
| WHITE BALANCE ADJUSTMENT<br>● CUTOFF ADJUSTMENT<br>(RCUT)<br>(GCUT)<br>(BCUT)<br>● DRIVE ADJUSTMENT<br>(GDRV)<br>(BDRV) | 1. Set Contrast to 40, and brightness to +20 by picture control.<br>2. Set the TV in service mode, and get the inside W/B adjusting signal with VIDEO button.<br>3. Select RCUT, GCUT and BCUT with CHANNEL ▲, ▼ buttons, to set individual values to 32, and to set GDRV and BDRV to 20 with VOLUME ⊿ – /+ buttons.<br>4. Press -/- - button on the remote control and rotate Screen VR to get one slight horizontal line on screen.<br>Note: Every pressing of -/- - button provides Horizontal line picture and Normal picture alternately.<br>5. Press -/- - button to release horizontal line picture, and select the two other colors which did not light in the above step with CHANNEL ▲, ▼ buttons. Then tap VOLUME ⊿ – /+ buttons so that three colors slightly light in the same level.<br>※ To correct white balance in light area, select GDRV and BDRV with CHANNEL ▲, ▼ buttons to adjust.<br>※ To correct white balance in dark area, perform fine adjustment of RCUT, GCUT and BCUT.<br> Light area check (to show white)<br>Dark area check (to show black) |

## C7SS Series (Reference Factory Adjustments)

**Item. [SCNT]**

Name. SUB-CONTRAST

SETTING. DYNAMIC MODE

Input signal. SUB-BRIGHT SIGNAL

Measurement place. Q501 #55PIN (TP501)

Adjustment method.

Adjust the amplitude from pedestal-level to a white peak.

Making standard 2.3±0.2Vop

**Item. [BRTC]**

Name. SUB-BRIGHT CENTER

SETTING. DYNAMIC MODE

Input signal. SUB-BRIGHT SIGNAL

Measurement place. On picture

Adjustment method. It is black step of the (*sub-bright*) signal and adjust the number.

Making standard 4±1.5 bar

**Item. [COLP]**

Name. SUB-COLOR CENTER (PAL)

SETTING. DYNAMIC MODE

Input signal. SUB-BRIGHT SIGNAL (PAL)

Measurement place. Q501 #55PIN (TP501)

Adjustment method. Adjust the amplitude of B-Y.

Making standard 1.40±0.2 Vop

**Item. [RCUT], [GCUT], [BCUT], [GDRV], [BDRV], [SCREEN VR]**

Name. CUT OFF/DRIVE ADJUST

SETTING. [RCUT], [GCUT], [BCUT], [GDRV], [BDRV] each data set = 40h
Set to White line mode0

Input signal. White signal

Measurement place. On picture.

Adjustment method.

Raise screen VR gradually and stop in the place where the line of either of R or G or B shines slightly. Decide the position of screen VR there.

Raise the color data other than the line which shines by first gradually shine point.

Stop in the place which shines in most white. Make clear white line mode.

Adjust it repeatedly for both the shade part and discernment to become a correct numerical value by using proofread CA100.

Making standard 103cd/m$^2$ 8750K –0.002uv 17cd/m$^2$ 8750K –0.002uv

Item. [BELL]

Name. BELL FILTER

SETTING. NONE

Input signal. SECAM COLOR BAR.

Measurement place. QQ01 #21 (TPM01)

Adjustment method. Adjust with the synchroscope as the display crimp is flat.

Making standard 100±10%

Item. [SRY]

Name. SECAM R-Y BLACK LEVEL.

SETTING. DYNAMIC MODE

Input signal. SECAM COLOR BAR.

Measurement place. Q501 #55 (TP501)

Adjustment method. Adjust [SRY] the level of the monochrome signal part must be a match to the level of horizontal blanking signal.

Making standard 0±40mV

Item. [SBY]

Name. SECAM B-Y BLACK LEVEL.

SETTING. DYNAMIC MODE

Input signal. SECAM COLOR BAR.

Measurement place. Q501 #55 (TP501)

Adjustment method. Adjust [SBY] the level of the monochrome signal part must be a mutch to the level of horizontal blanking signal.

Making standard 0±40mV

Item. [COLS]

Name. SUB-COLOR CENTER (SECAM).

SETTING. DYNAMIC MODE

Input signal. SECAM COLOR BAR.

Measurement place. Q501 #55 (TP501)

Adjustment method. Adjust the amplitude of R-Y. (Mute the picture in adjustment)

Making standard 1.90±0.2Vop (Pedestal to peak)

Item. [VERT POSITION]

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER

Input signal. WG Philips Pattern (Do not use French SECAM).

Measurement place. On Screen

Adjustment method. a:Adjust the height so as to appear the flag of both upper and lower side.
b:Adjust the picture to the center of the screen by [VPOS].

### Item. [V.HEIGHT]

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER

Input signal. WG Philips Pattern (Do not use French SECAM).

Measurement place. On Screen

Adjustment method. Adjust the Picture so as to just disappear the flag of both upper and lower side with [HIT].

### Item. [HORIZONTAL POSITION]

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER

Input signal. WG Philips Pattern (Do not use French SECAM).

Measurement place. On Screen

Adjustment method. Adjust the Picture of Philips pattern to the center of the screen with [HPOS]. (Minimize D-C by the CRT adjustment magnetic field)

### Item. [HORIZONTAL WIDTH] [SIDE PINCTION] [TRAPEZOID DISTORTION]

SETTING. CONTRAST=MAX. BRIGHT=CENTER COLOR=CENTER
After V-HIGHT/V-POSITION adjustment.

Input signal. WG Philips Pattern (Do not use French SECAM).

Measurement place. On Screen

Adjustment method.

1. Width: a: French Model; Adjust the width to just disappear the first line marker inside the flag of left and right side with [WID].
   b: Other Model; Adjust the width to just disappear the flag of both left and right side with [WID].
2. E/W : Adjust the vertical bar of both left and right end to the straightline it with [DPC].
3. Trapezium : Compensate the trapeqoid distortion with [TRAP].
4. Width : Adjust the width again. (Turn the direction of CPT to the east or the west when adjusting. adjust the amount offsetting if it is not possible to do.)

### Item. [Vertical, synchronous VR adjustment] (R4350)]

SETTING. UNIT ADJUSTMENT

Adjustment method. Supply +12V to the terminal HVCC.

Adjust the frequency of the terminal Q420#24 with a frequency counter to

80.0(+2.0)(−1.0)Hz.

Note: Connect power supply GND with GND of all connectors when you supply the power supply.

### Item. [Horizontal, synchronous VR adjustment] (R4450)

SETTING. UNIT ADJUSTMENT

Adjustment method. Supply +12V to the terminal HVCC.

Adjust the frequency of the terminal Q420#24 with a frequency counter to

31.36±0.15kHz.

Note: Connect power supply GND with GND of all connectors when you supply the power supply.

# CIRCUIT CHECK

## HIGH VOLTAGE CHECK

**CAUTION:** There is no HIGH VOLTAGE ADJUSTMENT on this chassis. Checking should be done following the steps below.

1. Connect an accurate high voltage meter to the second anode of the picture tube.
2. Turn on the receiver. Set the BRIGHTNESS and CONTRAST controls to minimum (zero beam current).
3. High voltage must be measured below Ⓑ kV.

Refer to table-1 for high voltage Ⓑ.
(See SETTING & ADJUSTING DATA on page 16)

4. Vary the BRIGHTNESS control to both extremes to be sure the high voltage does not exceed the limit under any conditions.

# CHAPTER 2 SPECIFIC INFORMATIONS

## SETTING & ADJUSTING DATA

### 【 SAFETY INSTRUCTIONS 】

| | | 2876DD | 2876DF |
|---|---|---|---|
| HIGH VOLTAGE AT ZERO BEAM: | Ⓐ | 31.8 kV | 31.8 kV |
| MAX HIGH VOLTAGE: | Ⓑ | 32.0 kV | 32.0 kV |
| AV VOLTAGE: | Ⓒ | 220 ~ 240 V | |

**Table-1**

### 【 SERVICE MODE 】

**ADJUSTING ITEMS AND DATAS IN THE SERVICE MODE:**

| Item | Adjustments | Reference data |
|---|---|---|
| RCUT | R CUTOFF (B/W) | 40H |
| GCUT | G CUTOFF (B/W) | 40H |
| BCUT | B CUTOFF (B/W) | 40H |
| GDRV | G DRIVE | 40H |
| BDRV | B DRIVE | 40H |
| CNTX | SUB CONTRAST MAX (4:3 MODE) | 7FH |
| BRTC | SUB BRIGHT CEN | 80H |
| COLC | SUB COLOR CEN NTSC | 00H |
| TNTC | SUB TINT CEN | 48H |
| COLP | SUB COLOR CEN PAL | 39H |
| COLS | SUB COLOR CEN SECAM | 00H |
| SCOL | SUB COLOR | 07H |
| SCNT | SUB CONTRAST | 19H |
| VOLS | VOL SCART | 00H |
| FVOL | FM VOL PRE SCALE | 00H |
| NVOL | NICAM VOL PRE SCALE | 00H |
| NICL | NICAM THRESHOLD LEVEL | 00H |
| NICH | NICAM THRESHOLD LEVEL | 00H |
| IDL | IGR THRESHOLD LEVEL | 00H |
| IDH | IGR THRESHOLD LEVEL | 00H |
| XVOL | EXT PRE. VOLUME | 11H |
| EMX | NICAM ON LEVEL | FCH |
| EMN | NICAM OFF LEVEL | 64H |
| HPOS | 50Hz H-POSITION | 05H |
| VPOS | V-POSITION | 0BH |
| HIT | HEIGHT | 58H |
| VLIN | V-LINEARITY | 18H |
| VSC | V-S CORRECTION | 19H |
| VPS | V-SHIFT | 0BH |
| VCP | V-COMPENSATION | 09H |
| WID | PICTURE WIDTH | 2BH |
| PARA | E-W PARABOLA | 29H |
| CNR | E-W CORNER | 07H |
| TRAP | TRAPEZIUM | 27H |
| HCP | H-COMPENSATION | 08H |
| VFC | V-F CORRECTION | 0FH |
| BELL | SECAM BELL FILTER | 80H |
| SRY | SECAM R-Y | 08H |
| SBY | SECAM B-Y | 08H |
| HVPU | — | 00H |

This item may require adjustments by models after initialization, when QA02 is replaced.

**Table-2**

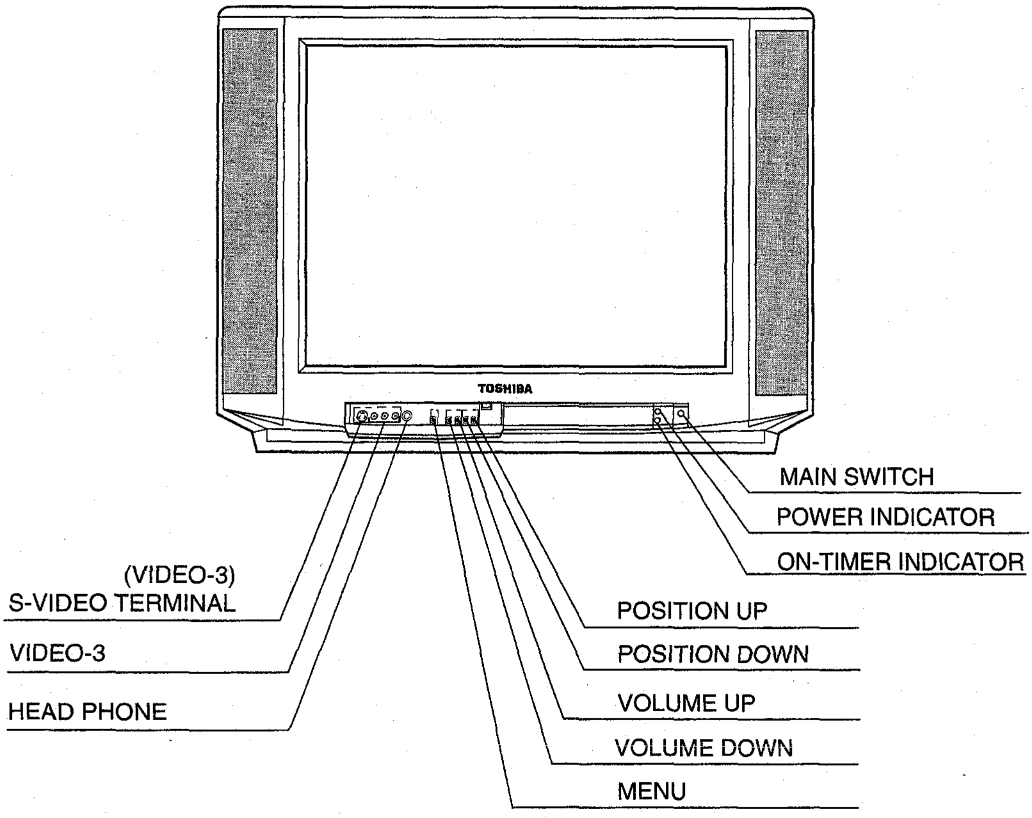
## 【DESIGN MODE】

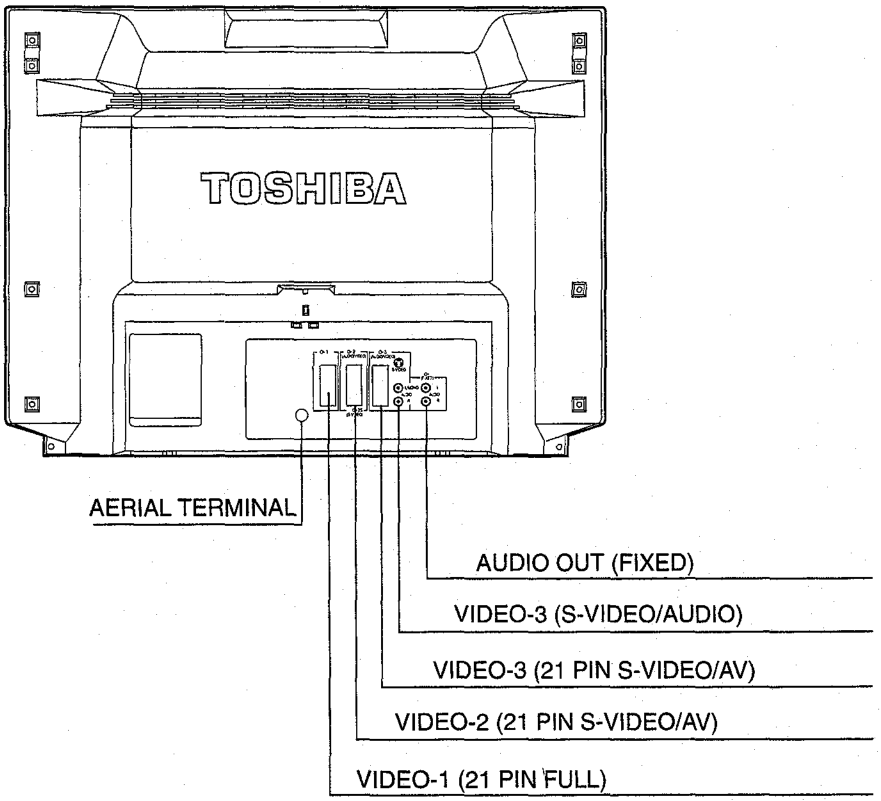
### ADJUSTING ITEMS AND DATAS IN THE DESIGN MODE:

| Item | Name of adjustment | | Data | | Remarks |
|---|---|---|---|---|---|
| | | Preset Data | 2876DD | 2876DF | |
| RCUT | | | | | |
| OPT1 | OPTION 1 | 32H | 32H | 32H | |
| OPT0 | OPTION 0 | 86H | 46H | 00H | |
| OSD | | | | | |
| . | | | | | |
| . | | | | | |
| . | | | | | |
| . | | | | | |
| RCUT | | | | | |

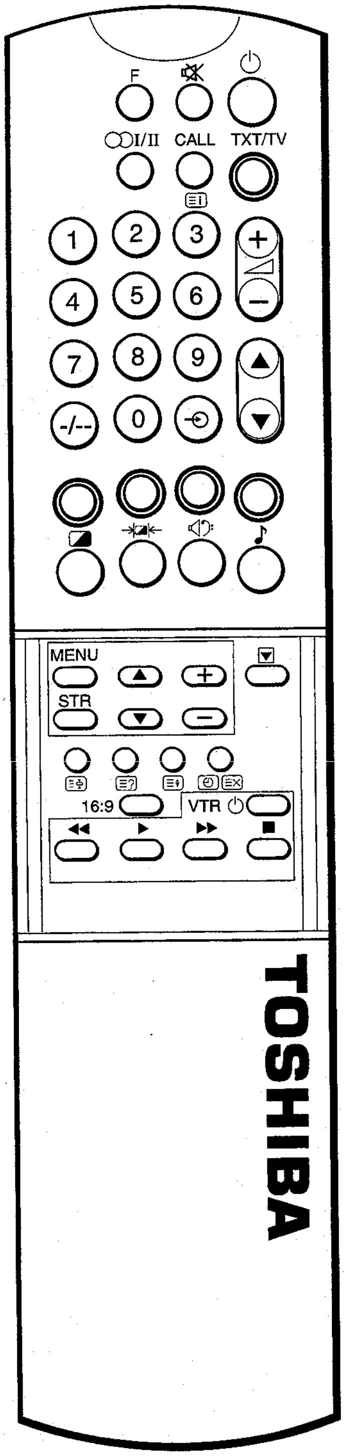
**Table-3**

# LOCATION OF CONTROLS (TV SET)


TOSHIBA
MAIN SWITCH
POWER INDICATOR
ON-TIMER INDICATOR
(VIDEO-3)
S-VIDEO TERMINAL
VIDEO-3
HEAD PHONE
POSITION UP
POSITION DOWN
VOLUME UP
VOLUME DOWN
MENU


TOSHIBA
AERIAL TERMINAL
AUDIO OUT (FIXED)
VIDEO-3 (S-VIDEO/AUDIO)
VIDEO-3 (21 PIN S-VIDEO/AV)
VIDEO-2 (21 PIN S-VIDEO/AV)
VIDEO-1 (21 PIN FULL)

# LOCATION OF CONTROLS (REMOTE CONTROL)



**KEY ASSIGNMENT**

⏻ ........... ON/STAND-BY
🔇 ........... Sound mute
F ............ (Quick/advanced operation)
CALL (On-screen call)/▤ (index, initial) .......... TELETEXT MODE
◪ ........... PICTURE MENU
♪ ............ SOUND MENU
∞ I/II ..... <TV MODE> .......... STEREO BILINGUAL
1~9, 0 ..... TEN KEY
- / - - ........ 1 or 2 place
-⊙ .......... VIDEO INPUT (EXTERNAL INPUT SOURCE SW.)
◿ .......... VOLUME
+ ............. LEVEL PLUS (VOLUME, MENU)
– ............. LEVEL MINUS (VOLUME, MENU)
▲ ............ UP (POSI., CH., TEXT PAGE)
▼ ............ DOWN (POSI., CH., TEXT PAGE)

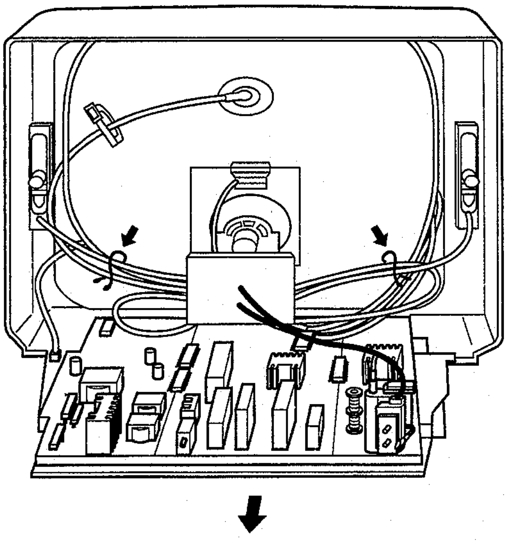
TELE-TEXT
- TXT/TV ... TEXT, MIX, TV MODE SW.
- ▤ ........... HOLD
- ▤ ........... <TEXT MODE> ....... REVEAL / CONCEAL
- ▤ ........... <TEXT MODE> ....... F-T-B (FULL, TOP, BOTTOM)
- ⊙/▤....... TIME DISPLAY (TV MODE) TEXT CLEAR (TEXT MODE)
- FLOF COLOUR KEY (4 key used) Red/Green/Yellow/Blue

◁) .................. Super woofer
→◪← ............ Selectable picture
MENU........... TUNING & OTHER MENU
STR .............. Store
▲ / ▼ ........ Menu select
– / + ........ Level down/up
16:9 .............. PIC SIZE (Picture size select)

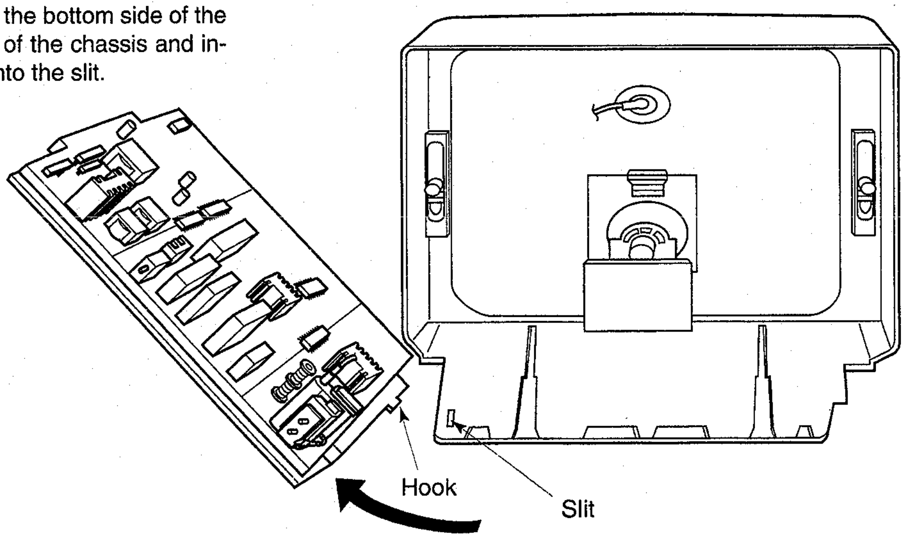
VTR control
⏻ Power on/standby
▶ Play
■ Stop
◀◀ Rewind
▶▶ Fast forward

# SERVICE POSITION

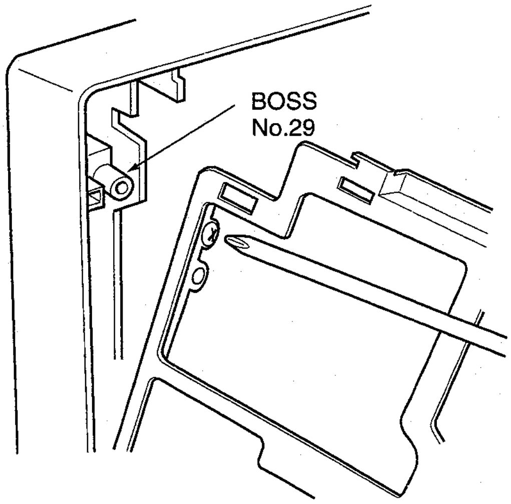
1. Disconnect the lead wires for the speaker fixed to the degausser coil with three omega clips. And lifting up slightly, pull out the chassis from the front mask.



2. There is a slit at the left front of the bottom side of the front mask. Lift up the left side of the chassis and insert the hook at the right side into the slit.

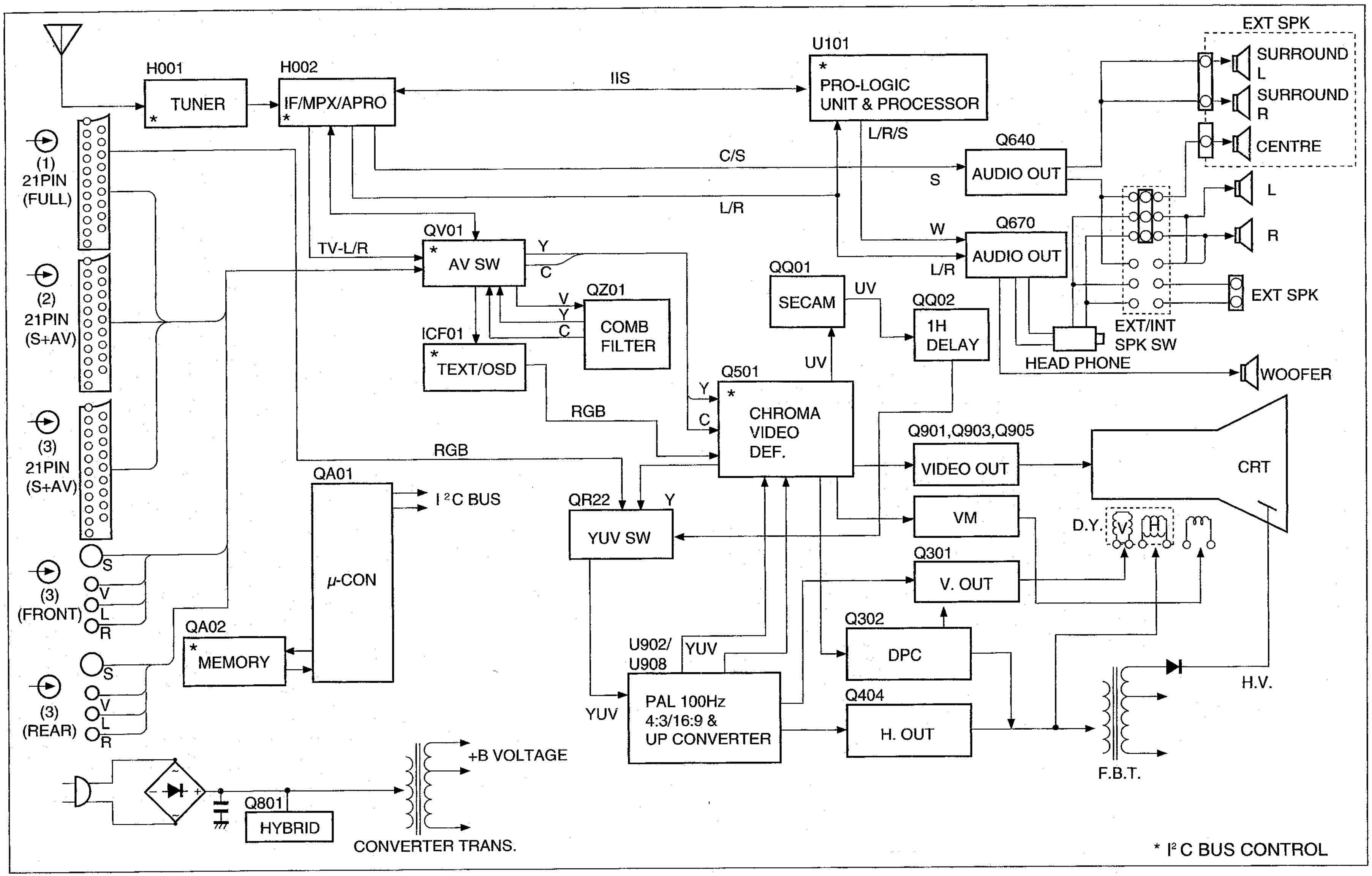


3. To retain the chassis, use the upper left boss (highest boss) which is marked with No. 29. And fix it with screws for back cover fixing.
   Upper hole of the chassis frame.

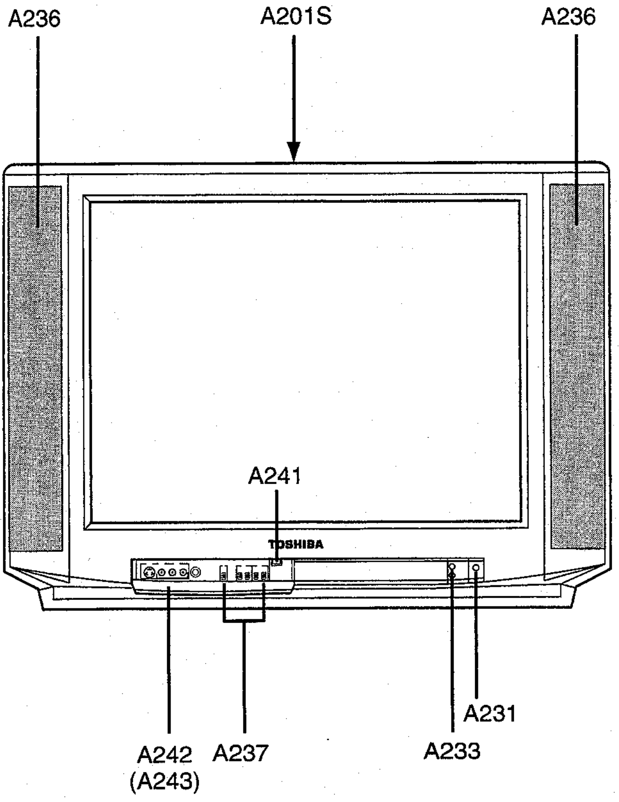


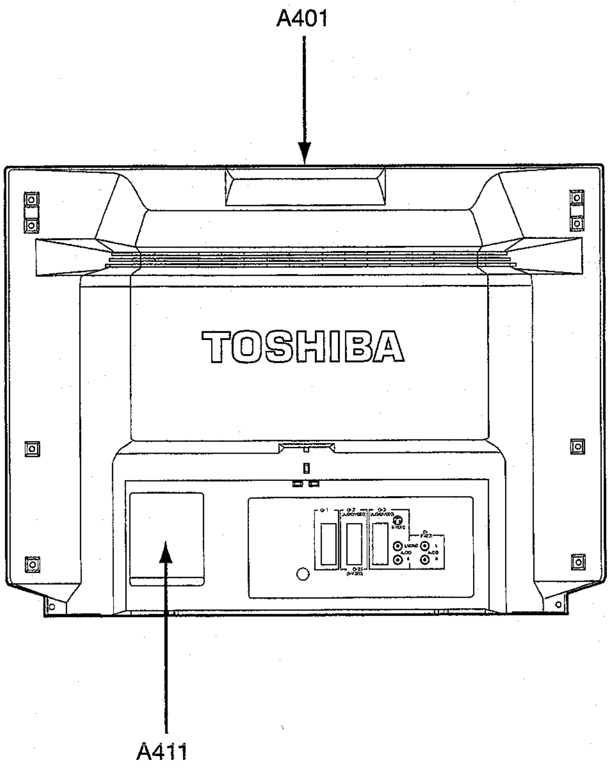
4. After repair works, restore the unit by reversing the above steps.

# CIRCUIT BLOCK DIAGRAM


H001
TUNER
H002
IF/MPX/APRO
IIS
U101
PRO-LOGIC UNIT & PROCESSOR
L/R/S
C/S
S
L/R
W
L/R
Q640
AUDIO OUT
Q670
AUDIO OUT
EXT SPK
SURROUND L
SURROUND R
CENTRE
L
R
EXT SPK
EXT/INT SPK SW
HEAD PHONE
WOOFER
(1) 21PIN (FULL)
(2) 21PIN (S+AV)
(3) 21PIN (S+AV)
(3) (FRONT)
(3) (REAR)
S
V
L
R
TV-L/R
QV01
AV SW
Y
C
V
Y
C
QZ01
COMB FILTER
ICF01
TEXT/OSD
RGB
RGB
QQ01
SECAM
UV
UV
QQ02
1H DELAY
Q501
CHROMA VIDEO DEF.
Y
C
Q901,Q903,Q905
VIDEO OUT
CRT
VM
D.Y.
V
H
Q301
V. OUT
Q302
DPC
Q404
H. OUT
F.B.T.
H.V.
QA01
μ-CON
I ²C BUS
QA02
MEMORY
QR22
YUV SW
Y
YUV
U902/ U908
YUV
PAL 100Hz 4:3/16:9 & UP CONVERTER
Q801
HYBRID
+B VOLTAGE
CONVERTER TRANS.
* I²C BUS CONTROL

# CABINET REPLACEMENT PARTS LIST


A236
A201S
A236
A241
TOSHIBA
A242
(A243)
A237
A231
A233


A401
TOSHIBA
A411

| Location No. | Part No. | Description |
|---|---|---|
| A201S | 23510020 | Front Cover |
| A231 | 23444902 | Button, POWER |
| A233 | 23430336 | Lens, Remote |
| A236 | 23519547 | Speaker Grille |
| A237 | 23443966 | Button, Control |
| A241 | 70368125 | Push Catch for Door |
| A242 | 23426957 | Door, Proper |
| A243 | 23421759 | Piece, Decorative |
| ⚠A401 | 23426393 | Back Cover |
| A411 | 23560509 | Label, Model No. (2876DD) |
| A411 | 23560541 | Label, Model No. (2876DF) |

# CHASSIS REPLACEMENT PARTS LIST

**WARNING:** BEFORE SERVICING THIS CHASSIS, READ THE "X-RAY RADIATION PRECAUTION", "SAFETY PRECAUTION" AND "PRODUCT SAFETY NOTICE" ON PAGE 3 OF THIS MANUAL.

**CAUTION:** The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

*NOTICE:*

- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

**Models : 2876DD, 2876DF**

| | | | | | |
|---|---|---|---|---|---|
| Capacitors ............. | CD : Ceramic Disk | PF : Plastic Film | | EL : Electrolytic | |
| Resistors ............... | CF : Carbon Film | CC : Carbon Composition | | MF : Metal Film | |
| | OMF : Oxide Metal Film | VR : Variable Resistor | | FR : Fusible Resistor | |

(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

| Location No. | Part No. | Description |
|---|---|---|
| **CAPACITORS** | | |
| C101 | 24797229 | EL, 2.2μF, ±20%, 50V(2876DF) |
| C102 | 24763221 | EL, 220μF, ±20%, 16V |
| C103 | 24232103 | CD, 0.01μF, +80%, -20% |
| C104 | 24794470 | EL, 47μF, ±20%, 16V |
| C105 | 24212102 | CD, 1000pF, ±10% |
| C106 | 24797100 | EL, 10μF, ±20%, 50V |
| C107 | 24763221 | EL, 220μF, ±20%, 16V |
| C108 | 24763101 | EL, 100μF, ±20%, 16V |
| C109 | 24232103 | CD, 0.01μF, +80%, -20% |
| C115 | 24232103 | CD, 0.01μF, +80%, -20% |
| C116 | 24763221 | EL, 220μF, ±20%, 16V |
| C183 | 24797229 | EL, 2.2μF, ±20%, 50V(2876DD) |
| C183 | 24797479 | EL, 4.7μF, ±20%, 50V(2876DF) |
| C201 | 24206100 | EL, 10μF, 50V |
| C203 | 24538104 | PF, 0.1μF |
| C204 | 24206010 | EL, 1μF, 50V |
| C205 | 24206229 | EL, 2.2μF, 50V |
| C206 | 24797220 | EL, 22μF, ±20%, 50V |
| C207 | 24436100 | CD, 10pF, ±0.25pF |
| C208 | 24436100 | CD, 10pF, ±0.25pF |
| C209 | 24436100 | CD, 10pF, ±0.25pF |
| C211 | 24353330 | CD, 33pF |
| C212 | 24794100 | EL, 10μF, ±20%, 16V |
| C214 | 24591334 | PF, 0.33μF |
| C215 | 24474101 | CD, 100pF, ±10% |
| C216 | 24436101 | CD, 100pF |
| C218 | 24436390 | CD, 39pF |
| C303 | 24214471 | CD, 470pF, ±10%, 500V |
| C304 | 24693473 | PF, 0.047μF, 100V |
| C305 | 24617912 | EL, 2.2μF, ±10%, 50V |
| C306 | 24073059 | EL, 3300μF, ±20%, 25V |
| C307 | 24793101 | EL, 100μF, ±20%, 10V |
| C308 | 24668221 | EL, 220μF, ±20%, 35V |
| C309 | 24668101 | EL, 100μF, ±20%, 35V |
| C310 | 24796222 | EL, 2200μF, ±20%, 35V |
| C311 | 24538473 | PF, 0.047μF |
| C312 | 24591273 | PF, 0.027μF |
| C313 | 24082058 | PF, 0.27μF, 100V |
| C315 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C315 | 24212102 | CD, 1000pF, ±10% |
| C316 | 24538393 | PF, 0.039μF |
| C318 | 24666101 | EL, 100μF, ±20%, 16V |
| C319 | 24212102 | CD, 1000pF, ±10% |
| C321 | 24591203 | PF, 0.02μF |
| C323 | 24538224 | PF, 0.22μF |
| C324 | 24538683 | PF, 0.068μF |
| C325 | 24617912 | EL, 2.2μF, ±10%, 50V |
| C327 | 24617787 | EL, 470μF, ±20%, 16V |
| C328 | 24232103 | CD, 0.01μF, +80%, -20% |
| C341 | 24797478 | EL, 0.47μF, ±20%, 50V |
| C366 | 24693473 | PF, 0.047μF, 100V |
| C370 | 24794101 | EL, 100μF, ±20%, 16V |
| C371 | 24794100 | EL, 10μF, ±20%, 16V |
| C401 | 24538104 | PF, 0.1μF |
| C403 | 24591333 | PF, 0.033μF |
| C404 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C410 | 24092341 | CD, 470pF, ±10%, 2kV |
| C413 | 24214332 | CD, 3300pF, ±10%, 500V |
| C416 | 24668101 | EL, 100μF, ±20%, 35V |
| C417 | 24214391 | CD, 390pF, ±10%, 500V |
| C419 | 24212102 | CD, 1000pF, ±10% |
| C420 | 24763101 | EL, 100μF, ±20%, 16V |
| C421 | 24539104 | PF, 0.1μF |
| C423 | 24829473 | PF, 0.047μF, 400V |
| C430 | 24232103 | CD, 0.01μF, +80%, -20% |
| C431 | 24212103 | CD, 0.01μF, ±10% |
| C431 | 24794102 | EL, 1000μF, ±20%, 16V |
| C439 | 24082830 | PF, 3000pF, ±3%, 1800V |
| C440 | 24082830 | PF, 3000pF, ±3%, 1800V |
| C442 | 24082642 | PF, 0.16μF, 400V |
| C443 | 24082644 | PF, 0.2μF, 400V |
| C444 | 24082827 | PF, 2200pF, ±3%, 1800V |
| C445 | 24828473 | PF, 0.047μF, 200V |
| C446 | 24679330 | EL, 33μF, ±20%, 250V |
| C448 | 24640908 | EL, 33μF, ±20%, 160V |
| C460 | 24796331 | EL, 330μF, ±20%, 35V |
| C461 | 24082827 | PF, 2200pF, ±3%, 1800V |
| C462 | 24796222 | EL, 2200μF, ±20%, 35V |
| C463 | 24212392 | CD, 3900pF, ±10% |
| C464 | 24640900 | EL, 4.7μF, 100V |
| C465 | 24591683 | PF, 0.068μF |

| Location No. | Part No. | Description |
|---|---|---|
| C466 | 24095884 | PF, 0.013μF, ±3%, 630V |
| C469 | 24092337 | CD, 220pF, ±10%, 2kV |
| C470 | 24794220 | EL, 22μF, ±20%, 16V |
| C472 | 24538474 | PF, 0.47μF |
| C473 | 24669010 | EL, 1μF, ±20%, 50V |
| C475 | 24095887 | PF, 0.01μF, ±3%, 630V |
| C477 | 24590563 | PF, 0.056μF |
| C478 | 24590563 | PF, 0.056μF |
| C479 | 24214471 | CD, 470pF, ±10%, 500V |
| C481 | 24538104 | PF, 0.1μF |
| C484 | 24591152 | PF, 1500pF |
| C491 | 24082749 | PF, 1.5μF, 250V |
| C492 | 24082645 | PF, 0.22μF, 400V |
| C494 | 24082644 | PF, 0.2μF, 400V |
| C495 | 24092343 | CD, 680pF, ±10%, 2kV |
| C496 | 24092343 | CD, 680pF, ±10%, 2kV |
| C501 | 24212101 | CD, 100pF, ±10% |
| C502 | 24232103 | CD, 0.01μF, +80%, -20% |
| C503 | 24763101 | EL, 100μF, ±20%, 16V |
| C504 | 24591222 | PF, 2200pF |
| C505 | 24353120 | CD, 12pF |
| C507 | 24353120 | CD, 12pF |
| C508 | 24206100 | EL, 10μF, 50V |
| C509 | 24763101 | EL, 100μF, ±20%, 16V |
| C510 | 24763101 | EL, 100μF, ±20%, 16V |
| C511 | 24232103 | CD, 0.01μF, +80%, -20% |
| C512 | 24206228 | EL, 0.22μF, 50V |
| C513 | 24092398 | CD, 0.1μF, +80%, -20% |
| C514 | 24538104 | PF, 0.1μF |
| C515 | 24538104 | PF, 0.1μF |
| C516 | 24212102 | CD, 1000pF, ±10% |
| C517 | 24353010 | CD, 1pF |
| C519 | 24353010 | CD, 1pF |
| C520 | 24474102 | CD, 1000pF, ±10% |
| C521 | 24212102 | CD, 1000pF, ±10% |
| C522 | 24473470 | CD, 47pF |
| C523 | 24473470 | CD, 47pF |
| C524 | 24436561 | CD, 560pF |
| C525 | 24353181 | CD, 180pF |
| C526 | 24474101 | CD, 100pF, ±10% |
| C613 | 24794470 | EL, 47μF, ±20%, 16V |
| C652 | 24668471 | EL, 470μF, ±20%, 35V |
| C660 | 24206229 | EL, 2.2μF, 50V |
| C661 | 24538104 | PF, 0.1μF |
| C664 | 24203100 | EL, 10μF, ±20%, 16V |
| C665 | 24206229 | EL, 2.2μF, 50V |
| C666 | 24206229 | EL, 2.2μF, 50V |
| C667 | 24232103 | CD, 0.01μF, +80%, -20% |
| C668 | 24212102 | CD, 1000pF, ±10% |
| C669 | 24668330 | EL, 33μF, ±20%, 35V |
| C670 | 24668330 | EL, 33μF, ±20%, 35V |
| C671 | 24797010 | EL, 1μF, ±20%, 50V |
| C673 | 24797010 | EL, 1μF, ±20%, 50V |
| C673 | 24474102 | CD, 1000pF, ±10% |
| C674 | 24797010 | EL, 1μF, ±20%, 50V |
| C674 | 24474102 | CD, 1000pF, ±10% |
| C675 | 24474102 | CD, 1000pF, ±10% |
| C675 | 24795470 | EL, 47μF, ±20%, 25V |
| C676 | 24474102 | CD, 1000pF, ±10% |
| C676 | 24797479 | EL, 4.7μF, ±20%, 50V |
| C677 | 24591102 | PF, 1000pF |
| C678 | 24474102 | CD, 1000pF, ±10% |
| C678 | 24591102 | PF, 1000pF |
| C679 | 24474102 | CD, 1000pF, ±10% |

| Location No. | Part No. | Description |
|---|---|---|
| C679 | 24538104 | PF, 0.1μF |
| C680 | 24668102 | EL, 1000μF, ±20%, 35V |
| C681 | 24668471 | EL, 470μF, ±20%, 35V |
| C681 | 24474102 | CD, 1000pF, ±10% |
| C682 | 24668471 | EL, 470μF, ±20%, 35V |
| C682 | 24474102 | CD, 1000pF, ±10% |
| C683 | 24668102 | EL, 1000μF, ±20%, 35V |
| C684 | 24591124 | PF, 0.12μF |
| C685 | 24591124 | PF, 0.12μF |
| C686 | 24591124 | PF, 0.12μF |
| C687 | 24232103 | CD, 0.01μF, +80%, -20% |
| C688 | 24203220 | EL, 22μF, ±20%, 16V |
| C704 | 24232103 | CD, 0.01μF, +80%, -20% |
| C705 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C707 | 24794470 | EL, 47μF, ±20%, 16V |
| C712 | 24666470 | EL, 47μF, ±20%, 16V |
| C713 | 24790100 | EL, 10μF, ±20%, 160V |
| C714 | 24436101 | CD, 100pF |
| C715 | 24214472 | CD, 4700pF, ±10%, 500V |
| C716 | 24436101 | CD, 100pF |
| C717 | 24214472 | CD, 4700pF, ±10%, 500V |
| C718 | 24794470 | EL, 47μF, ±20%, 16V |
| C719 | 24435151 | CD, 150pF, 500V |
| C720 | 24790100 | EL, 10μF, ±20%, 160V |
| C721 | 24794470 | EL, 47μF, ±20%, 16V |
| ⚠C801 | 24082927 | PF, 0.22μF, AC275V |
| ⚠C802 | 24082927 | PF, 0.22μF, AC275V |
| ⚠C805 | 24092281 | CD, 4700pF, ±20%, AC250V |
| C806 | 24092281 | CD, 4700pF, ±20%, AC250V |
| C807 | 24567474 | PF, 0.47μF |
| C808 | 24667331 | EL, 330μF, ±20%, 25V |
| C809 | 24214471 | CD, 470pF, ±10%, 500V |
| C810 | 24086873 | EL, 330μF, ±20%, 400V |
| ⚠C813 | 24092557 | CD, 2200pF, ±20%, AC250V |
| ⚠C814 | 24092557 | CD, 2200pF, ±20%, AC250V |
| C816 | 24669221 | EL, 220μF, ±20%, 50V |
| C817 | 24092341 | CD, 470pF, ±10%, 2kV |
| C818 | 24095931 | PF, 2200pF, 1250V |
| C819 | 24676220 | EL, 22μF, ±20%, 100V |
| C820 | 24092343 | CD, 680pF, ±10%, 2kV |
| C821 | 24214471 | CD, 470pF, ±10%, 500V |
| C829 | 24590182 | PF, 1800pF |
| C831 | 24794470 | EL, 47μF, ±20%, 16V |
| C832 | 24794470 | EL, 47μF, ±20%, 16V |
| C833 | 24669100 | EL, 10μF, ±20%, 50V |
| C834 | 24797100 | EL, 10μF, ±20%, 50V |
| C835 | 24794470 | EL, 47μF, ±20%, 16V |
| C841 | 24669100 | EL, 10μF, ±20%, 50V |
| C842 | 24669100 | EL, 10μF, ±20%, 50V |
| C843 | 24590104 | PF, 0.1μF |
| C846 | 24590104 | PF, 0.1μF |
| C884 | 24086916 | EL, 330μF, ±20%, 160V |
| C885 | 24214471 | CD, 470pF, ±10%, 500V |
| C887 | 24214471 | CD, 470pF, ±10%, 500V |
| C889 | 24668222 | EL, 2200μF, ±20%, 35V |
| C892 | 24667222 | EL, 2200μF, ±20%, 25V |
| C893 | 24092337 | CD, 220pF, ±10%, 2kV |
| C895 | 24669470 | EL, 47μF, ±20%, 50V |
| C896 | 24214471 | CD, 470pF, ±10%, 500V |
| C897 | 24666332 | EL, 3300μF, ±20%, 16V |
| C898 | 24590153 | PF, 0.015μF |
| C899 | 24214471 | CD, 470pF, ±10%, 500V |
| C902 | 24092353 | CD, 4700pF, ±10%, 2kV |
| C904 | 24436471 | CD, 470pF |

| Location No. | Part No. | Description |
|---|---|---|
| C905 | 24436471 | CD, 470pF |
| C907 | 24436471 | CD, 470pF |
| C909 | 24679220 | EL, 22μF, ±20%, 250V |
| C910 | 24797478 | EL, 0.47μF, ±20%, 50V |
| C911 | 24203100 | EL, 10μF, ±20%, 16V |
| C912 | 24794102 | EL, 1000μF, ±20%, 16V |
| C913 | 24763102 | EL, 1000μF, ±20%, 16V |
| C914 | 24212103 | CD, 0.01μF, ±10% |
| C915 | 24092398 | CD, 0.1μF, +80%,-20% |
| C920 | 24591104 | PF, 0.1μF |
| C921 | 24591104 | PF, 0.1μF |
| C930 | 24214101 | CD, 100pF, ±10%, 500V |
| C931 | 24214101 | CD, 100pF, ±10%, 500V |
| C4031 | 24591562 | PF, 5600pF |
| C4041 | 24797229 | EL, 2.2μF, ±20%, 50V |
| C4301 | 24797010 | EL, 1μF, ±20%, 50V |
| C4303 | 24591433 | PF, 0.043μF |
| C4304 | 24591153 | PF, 0.015μF |
| C4305 | 24794101 | EL, 100μF, ±20%, 16V |
| C4306 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4307 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4311 | 24794471 | EL, 470μF, ±20%, 16V |
| C4401 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4402 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4403 | 24501561 | PF, 560pF |
| C4404 | 24501132 | PF, 1300pF |
| C4405 | 24797479 | EL, 4.7μF, ±20%, 50V |
| C4406 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4408 | 24766229 | EL, 2.2μF, ±20%, 50V |
| C4412 | 24501132 | PF, 1300pF |
| C4413 | 24501102 | PF, 1000pF |
| C4414 | 24232103 | CD, 0.01μF, +80%, -20% |
| C4415 | 24567474 | PF, 0.47μF |
| C4416 | 24501161 | PF, 160pF |
| C4417 | 24590332 | PF, 3300pF |
| C4421 | 24353330 | CD, 33pF |
| CA13 | 24212101 | CD, 100pF, ±10% |
| CA30 | 24212101 | CD, 100pF, ±10% |
| CA33 | 24232103 | CD, 0.01μF, +80%, -20% |
| CA37 | 24212101 | CD, 100pF, ±10% |
| CA38 | 24212101 | CD, 100pF, ±10% |
| CA42 | 24794100 | EL, 10μF, ±20%, 16V |
| CA43 | 24232103 | CD, 0.01μF, +80%, -20% |
| CA44 | 24232103 | CD, 0.01μF, +80%, -20% |
| CA68 | 24794100 | EL, 10μF, ±20%, 16V |
| CA69 | 24232103 | CD, 0.01μF, +80%, -20% |
| CB01 | 24794470 | EL, 47μF, ±20%, 16V |
| CC10 | 24474101 | CD, 100pF, ±10% |
| CC20 | 24212102 | CD, 1000pF, ±10% |
| CC21 | 24436470 | CD, 47pF |
| CC22 | 24436470 | CD, 47pF |
| CF03 | 24567104 | PF, 0.1μF |
| CF04 | 24766101 | PF, 0.1μF |
| CF05 | 24766101 | PF, 0.1μF |
| CF06 | 24353220 | CD, 22pF |
| CF07 | 24353220 | CD, 22pF |
| CF08 | 24567104 | PF, 0.1μF |
| CF09 | 24567104 | PF, 0.1μF |
| CF10 | 24206100 | EL, 10μF, 50V |
| CF11 | 24567104 | PF, 0.1μF |
| CF12 | 24232103 | CD, 0.01μF, +80%, -20% |
| CF14 | 24232103 | CD, 0.01μF, +80%, -20% |
| CG01 | 24591124 | PF, 0.12μF |
| CG02 | 24567104 | PF, 0.1μF |

| Location No. | Part No. | Description |
|---|---|---|
| CG03 | 24590823 | PF, 0.082μF |
| CG04 | 24669010 | EL, 1μF, ±20%, 50V |
| CG05 | 24666220 | EL, 22μF, ±20%, 16V |
| CG07 | 24669010 | EL, 1μF, ±20%, 50V |
| CG08 | 24669010 | EL, 1μF, ±20%, 50V |
| CG09 | 24669010 | EL, 1μF, ±20%, 50V |
| CG12 | 24591273 | PF, 0.027μF (2876DD) |
| CG13 | 24232103 | CD, 0.01μF, +80%, -20% |
| CG14 | 24666101 | EL, 100μF, ±20%, 16V |
| CG15 | 24591822 | PF, 8200pF (2876DD) |
| CG16 | 24669010 | EL, 1μF, ±20%, 50V (2876DD) |
| CG17 | 24591273 | PF, 0.027μF (2876DD) |
| CG18 | 24591822 | PF, 8200pF (2876DD) |
| CG24 | 24669100 | EL, 10μF, ±20%, 50V |
| CG25 | 24212102 | CD, 1000pF, ±10% |
| CG26 | 24669100 | EL, 10μF, ±20%, 50V |
| CG27 | 24669229 | EL, 2.2μF, ±20%, 50V(2876DD) |
| CG28 | 24669229 | EL, 2.2μF, ±20%, 50V(2876DD) |
| CG29 | 24232103 | CD, 0.01μF, +80%, -20% |
| CG30 | 24232103 | CD, 0.01μF, +80%, -20% |
| CQ02 | 24353820 | CD, 82pF |
| CQ03 | 24212102 | CD, 1000pF, ±10% |
| CQ04 | 24794100 | EL, 10μF, ±20%, 16V |
| CQ05 | 24590563 | PF, 0.056μF |
| CQ07 | 24590203 | PF, 0.02μF |
| CQ08 | 24590683 | PF, 0.068μF |
| CQ09 | 24797229 | EL, 2.2μF, ±20%, 50V |
| CQ10 | 24590223 | PF, 0.022μF |
| CQ11 | 24797229 | EL, 2.2μF, ±20%, 50V |
| CQ12 | 24436910 | CD, 91pF |
| CQ13 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ14 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ15 | 24794101 | EL, 100μF, ±20%, 16V |
| CQ16 | 24232103 | CD, 0.01μF, +80%, -20% |
| CQ17 | 24353150 | CD, 15pF |
| CQ18 | 24436910 | CD, 91pF |
| CQ19 | 24590103 | PF, 0.01μF |
| CQ20 | 24590104 | PF, 0.1μF |
| CQ21 | 24794470 | EL, 47μF, ±20%, 16V |
| CQ22 | 24232103 | CD, 0.01μF, +80%, -20% |
| CQ23 | 24590104 | PF, 0.1μF |
| CQ24 | 24590104 | PF, 0.1μF |
| CQ25 | 24797100 | EL, 10μF, ±20%, 50V |
| CQ26 | 24590104 | PF, 0.1μF |
| CQ27 | 24590104 | PF, 0.1μF |
| CQ28 | 24797478 | EL, 0.47μF, ±20%, 50V |
| CQ29 | 24794101 | EL, 100μF, ±20%, 16V |
| CQ30 | 24232103 | CD, 0.01μF, +80%, -20% |
| CQ31 | 24797478 | EL, 0.47μF, ±20%, 50V |
| CQ32 | 24590103 | PF, 0.01μF |
| CQ33 | 24590104 | PF, 0.1μF |
| CQ34 | 24590104 | PF, 0.1μF |
| CQ35 | 24206478 | EL, 0.47μF, 50V |
| CQ36 | 24206478 | EL, 0.47μF, 50V |
| CQ37 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ38 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ39 | 24797010 | EL, 1μF, ±20%, 50V |
| CQ40 | 24436910 | CD, 91pF |
| CQ45 | 24212102 | CD, 1000pF, ±10% |
| CQ46 | 24212102 | CD, 1000pF, ±10% |
| CR12 | 24538104 | PF, 0.1μF |
| CR13 | 24538104 | PF, 0.1μF |
| CR14 | 24538104 | PF, 0.1μF |
| CR21 | 24232103 | CD, 0.01μF, +80%, -20% |

| Location No. | Part No. | Description |
|---|---|---|
| CR22 | 24203470 | EL, 47µF, ±20%, 16V |
| CR23 | 24794101 | EL, 100µF, ±20%, 16V |
| CR24 | 24794101 | EL, 100µF, ±20%, 16V |
| CR25 | 24794101 | EL, 100µF, ±20%, 16V |
| CR26 | 24591223 | PF, 0.022µF |
| CR27 | 24591223 | PF, 0.022µF |
| CR28 | 24591223 | PF, 0.022µF |
| CR29 | 24794100 | EL, 10µF, ±20%, 16V |
| CR30 | 24591223 | PF, 0.022µF |
| CR31 | 24797229 | EL, 2.2µF, ±20%, 50V |
| CR32 | 24591223 | PF, 0.022µF |
| CR33 | 24232103 | CD, 0.01µF, +80%, −20% |
| CR35 | 24794470 | EL, 47µF, ±20%, 16V |
| CR36 | 24232103 | CD, 0.01µF, +80%, −20% |
| CR40 | 24794470 | EL, 47µF, ±20%, 16V |
| CR41 | 24232103 | CD, 0.01µF, +80%, −20% |
| CR42 | 24203101 | EL, 100µF, ±20%, 16V |
| CR43 | 24794101 | EL, 100µF, ±20%, 16V |
| CR44 | 24794101 | EL, 100µF, ±20%, 16V |
| CS01 | 24085944 | EL, 2.2µF, ±20%, 50V, Non-Polar |
| CS02 | 24085944 | EL, 2.2µF, ±20%, 50V, Non-Polar |
| CS03 | 24206229 | EL, 2.2µF, 50V |
| CS04 | 24206229 | EL, 2.2µF, 50V |
| CS05 | 24206229 | EL, 2.2µF, 50V |
| CS06 | 24206229 | EL, 2.2µF, 50V |
| CS07 | 24206229 | EL, 2.2µF, 50V |
| CS08 | 24206229 | EL, 2.2µF, 50V |
| CS09 | 24206010 | EL, 1µF, 50V |
| CS12 | 24474102 | CD, 1000pF, ±10% |
| CS13 | 24474102 | CD, 1000pF, ±10% |
| CS14 | 24206100 | EL, 10µF, 50V |
| CS15 | 24206100 | EL, 10µF, 50V |
| CS17 | 24666100 | EL, 10µF, ±20%, 16V |
| CS18 | 24666100 | EL, 10µF, ±20%, 16V |
| CS19 | 24206478 | EL, 0.47µF, 50V |
| CS22 | 24666100 | EL, 10µF, ±20%, 16V |
| CS23 | 24666100 | EL, 10µF, ±20%, 16V |
| CV01 | 24590103 | PF, 0.01µF |
| CV02 | 24085970 | EL, 10µF, ±20%, 16V, Non-Polar |
| CV03 | 24666100 | EL, 10µF, ±20%, 16V |
| CV04 | 24666100 | EL, 10µF, ±20%, 16V |
| CV05 | 24232103 | CD, 0.01µF, +80%, −20% |
| CV06 | 24666100 | EL, 10µF, ±20%, 16V |
| CV07 | 24232103 | CD, 0.01µF, +80%, −20% |
| CV08 | 24763102 | EL, 1000µF, ±20%, 16V |
| CV09 | 24666100 | EL, 10µF, ±20%, 16V |
| CV10 | 24085970 | EL, 10µF, ±20%, 16V, Non-Polar |
| CV11 | 24436331 | CD, 330pF |
| CV12 | 24092398 | CD, 0.1µF, +80%, −20% |
| CV13 | 24232103 | CD, 0.01µF, +80%, −20% |
| CV14 | 24474102 | CD, 1000pF, ±10% |
| CV15 | 24474102 | CD, 1000pF, ±10% |
| CV16 | 24474102 | CD, 1000pF, ±10% |
| CV17 | 24474102 | CD, 1000pF, ±10% |
| CV18 | 24474102 | CD, 1000pF, ±10% |
| CV19 | 24474102 | CD, 1000pF, ±10% |
| CV20 | 24353330 | CD, 33pF |
| CV23 | 24666101 | EL, 100µF, ±20%, 16V |
| CV24 | 24232103 | CD, 0.01µF, +80%, −20% |
| CV25 | 24763471 | EL, 470µF, ±20%, 16V |

| Location No. | Part No. | Description |
|---|---|---|
| CV34 | 24474102 | CD, 1000pF, ±10% |
| CV35 | 24212102 | CD, 1000pF, ±10% |
| CV37 | 24474102 | CD, 1000pF, ±10% |
| CV39 | 24666101 | EL, 100µF, ±20%, 16V |
| CV40 | 24232103 | CD, 0.01µF, +80%, −20% |
| CV42 | 24085944 | EL, 2.2µF, ±20%, 50V, Non-Polar |
| CV46 | 24212332 | CD, 3300pF, ±10% |
| CV47 | 24212332 | CD, 3300pF, ±10% |
| CV48 | 24212102 | CD, 1000pF, ±10% |
| CV65 | 24203101 | EL, 100µF, ±20%, 16V |
| CV66 | 24203101 | EL, 100µF, ±20%, 16V |
| CV67 | 24763471 | EL, 470µF, ±20%, 16V |
| CV68 | 24763471 | EL, 470µF, ±20%, 16V |
| CV77 | 24666100 | EL, 10µF, ±20%, 16V |
| CV80 | 24232103 | CD, 0.01µF, +80%, −20% |
| CX102 | 24085939 | EL, 4.7µF, ±20%, 25V, Non-Polar |
| CX103 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX104 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX105 | 24105330 | Chip, 33pF |
| CX106 | 24105680 | Chip, 68pF |
| CX107 | 24105330 | Chip, 33pF |
| CX108 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX109 | 24085945 | EL, 2.2µF, ±20%, 50V, Non-Polar |
| CX110 | 24665471 | EL, 470µF, 20%, 10v |
| CX111 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX112 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX113 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX114 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX115 | 24203470 | EL, 47µF, ±20%, 16V |
| CX116 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX117 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX118 | 24794101 | EL, 100µF, ±20%, 16V |
| CX119 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX120 | 24105470 | CD, 47pF |
| CX125 | 24105101 | CD, 100pF |
| CX126 | 24105271 | CD, 270pF |
| CX127 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX128 | 24085971 | EL, 3.3µF, ±20%, NP |
| CX129 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX130 | 24794101 | EL, 100µF, ±20%, 16V |
| CX131 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX132 | 24794101 | EL, 100µF, ±20%, 16V |
| CX133 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX134 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX136 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX137 | 24665101 | EL, 100µF, ±20%, 10V |
| CX138 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX139 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX140 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX141 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX146 | 24105470 | CD, 47pF |
| CX147 | 24105101 | CD, 100pF |
| CX148 | 24105271 | CD, 270pF |
| CX149 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX150 | 24085971 | EL, 3.3µF, ±20%, NP |
| CX151 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX152 | 24203470 | EL, 47µF, ±20%, 16V |
| CX153 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX154 | 24794101 | EL, 100µF, ±20%, 16V |
| CX155 | 24092399 | EL, 4.7µF, ±20%, 25V |
| CX156 | 24092399 | EL, 4.7µF, ±20%, 25V |

| Location No. | Part No. | Description |
|---|---|---|
| CX157 | 24105150 | Chip, 15pF |
| CX158 | 24105330 | Chip, 33pF |
| CX201 | 24203470 | EL, 47$\mu$F, ±20%, 16V |
| CX202 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX203 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX204 | 24203220 | EL, 22$\mu$F, ±20%, 16V |
| CX205 | 24665101 | EL, 100$\mu$F, ±20%, 10V |
| CX206 | 24203101 | EL, 100$\mu$F, ±20%, 16V |
| CX207 | 24665101 | EL, 100$\mu$F, ±20%, 10V |
| CX208 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX209 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX210 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX211 | 24203100 | EL, 10$\mu$F, ±20%, 16V |
| CX212 | 24665101 | EL, 100$\mu$F, ±20%, 10V |
| CX220 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX221 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX222 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX223 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX224 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX226 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX227 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX228 | 24092441 | Chip, 1$\mu$F, +80%, −20%, 16V |
| CX229 | 24092441 | Chip, 1$\mu$F, +80%, −20%, 16V |
| CX230 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX232 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX233 | 24762102 | EL, 1000$\mu$F, ±20%, 10V |
| CX234 | 24762102 | EL, 1000$\mu$F, ±20%, 10V |
| CX301 | 24665101 | EL, 100$\mu$F, ±20%, 10V |
| CX302 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX303 | 24665101 | EL, 100$\mu$F, ±20%, 10V |
| CX304 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX305 | 24092441 | Chip, 1$\mu$F, +80%, −20%, 16V |
| CX306 | 24105330 | Chip, 33pF |
| CX307 | 24105330 | Chip, 33pF |
| CX308 | 24105101 | CD, 100pF |
| CX309 | 24105680 | Chip, 68pF |
| CX310 | 24105101 | CD, 100pF |
| CX311 | 24105680 | Chip, 68pF |
| CX312 | 24105100 | Chip, 10pF |
| CX313 | 24105100 | Chip, 10pF |
| CX314 | 24105100 | Chip, 10pF |
| CX400 | 24108221 | Chip, 220pF |
| CX401 | 24108330 | Chip, 33pF |
| CX402 | 24108330 | Chip, 33pF |
| CX403 | 24108221 | Chip, 220pF |
| CX404 | 24108221 | Chip, 220pF |
| CX405 | 24108221 | Chip, 220pF |
| CX406 | 24108221 | Chip, 220pF |
| CX407 | 24109102 | Chip, 1000pF, ±10% |
| CX408 | 24108221 | Chip, 220pF |
| CX409 | 24105120 | Chip, 12pF |
| CX410 | 24105220 | Chip, 22pF |
| CX411 | 24105220 | Chip, 22pF |
| CX412 | 24105220 | Chip, 22pF |
| CX413 | 24105220 | Chip, 22pF |
| CX414 | 24105220 | Chip, 22pF |
| CX415 | 24108221 | Chip, 220pF |
| CX801 | 24763471 | EL, 470$\mu$F, ±20%, 16V |
| CX802 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX803 | 24665471 | EL, 470$\mu$F, 20%, 10v |
| CX804 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX805 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CX806 | 24092399 | EL, 4.7$\mu$F, ±20%, 25V |
| CZ08 | 24203100 | EL, 10$\mu$F, ±20%, 16V |
| CZ09 | 24436220 | CD, 22pF |
| CZ10 | 24473180 | CD, 18pF |
| CZ11 | 24473100 | CD, 10pF |
| CZ12 | 24232103 | CD, 0.01$\mu$F, +80%, −20% |
| CZ13 | 24092398 | CD, 0.1$\mu$F, +80%, −20% |
| CZ14 | 24617816 | EL, 10$\mu$F, ±20%, 50V |
| CZ15 | 24232103 | CD, 0.01$\mu$F, +80%, −20% |
| CZ16 | 24206478 | EL, 0.47$\mu$F, 50V |
| CZ17 | 24232103 | CD, 0.01$\mu$F, +80%, −20% |
| CZ19 | 24436181 | CD, 180pF |
| CZ20 | 24538103 | PF, 0.01$\mu$F |
| CZ21 | 24436390 | CD, 39pF |
| CZ22 | 24617816 | EL, 10$\mu$F, ±20%, 50V |
| CZ23 | 24092398 | CD, 0.1$\mu$F, +80%, −20% |
| CZ24 | 24092398 | CD, 0.1$\mu$F, +80%, −20% |
| CZ25 | 24203101 | EL, 100$\mu$F, ±20%, 16V |
| CZ26 | 24232103 | CD, 0.01$\mu$F, +80%, −20% |
| CZ28 | 24232103 | CD, 0.01$\mu$F, +80%, −20% |
| CZ29 | 24092398 | CD, 0.1$\mu$F, +80%, −20% |
| CZ30 | 24617816 | EL, 10$\mu$F, ±20%, 50V |
| CZ32 | 24436120 | CD, 12pF |
| CZ33 | 24436120 | CD, 12pF |
| CZ34 | 24473120 | CD, 12pF |
| CZ35 | 24473120 | CD, 12pF |
| CZ37 | 24092398 | CD, 0.1$\mu$F, +80%, −20% |
| CZ38 | 24092398 | CD, 0.1$\mu$F, +80%, −20% |
| CZ45 | 24436100 | CD, 10pF, ±0.25pF |
| CZ48 | 24203470 | EL, 47$\mu$F, ±20%, 16V |
| **RESISTORS** | | |
| R101 | 24382223 | OMF, 22k ohm, 1W |
| R201 | 24366681 | CF, 680 ohm |
| R202 | 24366821 | CF, 820 ohm |
| R203 | 24366100 | CF, 10 ohm |
| R204 | 24366104 | CF, 100k ohm |
| R205 | 24366101 | CF, 100 ohm |
| R206 | 24366222 | CF, 2200 ohm |
| R207 | 24366101 | CF, 100 ohm |
| R208 | 24366103 | CF, 10k ohm |
| R208 | 24366101 | CF, 100 ohm |
| R209 | 24366103 | CF, 10k ohm |
| R209 | 24366101 | CF, 100 ohm |
| R211 | 24366563 | CF, 56k ohm |
| R215 | 24366102 | CF, 1k ohm |
| R216 | 24366103 | CF, 10k ohm |
| R217 | 24366332 | CF, 3300 ohm |
| R217 | 24366101 | CF, 100 ohm |
| R218 | 24366513 | CF, 51k ohm |
| R220 | 24366102 | CF, 1k ohm |
| R221 | 24366102 | CF, 1k ohm |
| R223 | 24366102 | CF, 1k ohm |
| R226 | 24366101 | CF, 100 ohm |
| R227 | 24367223 | CF, 22k ohm, ±2% |
| R229 | 24366472 | CF, 4700 ohm |
| R232 | 24366103 | CF, 10k ohm |
| R233 | 24366104 | CF, 100k ohm |
| R234 | 24366271 | CF, 270 ohm |
| R235 | 24366472 | CF, 4700 ohm |
| R236 | 24366102 | CF, 1k ohm |
| R237 | 24366103 | CF, 10k ohm |
| R299 | 24366103 | CF, 10k ohm |
| R303 | 24321109 | MF, 1 ohm, 1/2W |
| R304 | 24366153 | CF, 15k ohm |
| R305 | 24322129 | MF, 1.2 ohm, 1W |

| Location No. | Part No. | Description |
|---|---|---|
| R306 | 24366222 | CF, 2200 ohm |
| R307 | 24366621 | CF, 620 ohm |
| R308 | 24366472 | CF, 4700 ohm |
| R309 | 24366333 | CF, 33k ohm |
| R310 | 24366102 | CF, 1k ohm |
| R312 | 24366163 | CF, 16k ohm |
| R313 | 24366303 | CF, 30k ohm |
| R314 | 24366105 | CF, 1M ohm |
| R315 | 24366684 | CF, 680k ohm |
| R316 | 24366154 | CF, 150k ohm |
| R317 | 24366472 | CF, 4700 ohm |
| R318 | 24366471 | CF, 470 ohm |
| R319 | 24366471 | CF, 470 ohm |
| R320 | 24366101 | CF, 100 ohm |
| R321 | 24366103 | CF, 10k ohm |
| R322 | 24366102 | CF, 1k ohm |
| R323 | 24366103 | CF, 10k ohm |
| R324 | 24366122 | CF, 1200 ohm |
| R325 | 24366103 | CF, 10k ohm |
| R325 | 24366103 | CF, 10k ohm |
| R327 | 24339339 | MF, 3.3 ohm, 2W |
| R328 | 24366102 | CF, 1k ohm |
| R329 | 24366103 | CF, 10k ohm |
| R330 | 24366113 | CF, 11k ohm |
| R331 | 24366104 | CF, 100k ohm |
| R336 | 24383271 | OMF, 270 ohm, 2W |
| R341 | 24366822 | CF, 8200 ohm |
| R343 | 24366153 | CF, 15k ohm |
| R344 | 24383821 | OMF, 820 ohm, 2W |
| R360 | 24366103 | CF, 10k ohm |
| R370 | 24322159 | OMF, 1.5 ohm, 1W |
| R371 | 24366562 | CF, 5600 ohm |
| R372 | 24366392 | CF, 3900 ohm |
| R373 | 24366182 | CF, 1800 ohm |
| R374 | 24366153 | CF, 15k ohm |
| R399 | 24366684 | CF, 680k ohm |
| R401 | 24366391 | CF, 390 ohm |
| R402 | 24366103 | CF, 10k ohm |
| R403 | 24366242 | CF, 2400 ohm |
| R405 | 24553682 | OMF, 6800 ohm, 1W |
| R407 | 24366103 | CF, 10k ohm |
| R411 | 24366560 | CF, 56 ohm |
| R414 | 24383220 | OMF, 22 ohm, 2W |
| R415 | 24553561 | OMF, 560 ohm, 1W |
| R416 | 24381563 | OMF, 56k ohm, 1/2W |
| R417 | 24510101 | Cement, 100 ohm, 5W |
| R424 | 24366152 | CF, 1500 ohm |
| R425 | 24366182 | CF, 1800 ohm |
| R426 | 24366751 | CF, 750 ohm |
| R427 | 24366392 | CF, 3900 ohm |
| R428 | 24366561 | CF, 560 ohm |
| R429 | 24552560 | OMF, 56 ohm, 1/2W |
| R441 | 24383561 | OMF, 560 ohm, 2W |
| R460 | 24552332 | OMF, 3300 ohm, 1/2W |
| R461 | 24552182 | OMF, 1800 ohm, 1/2W |
| R463 | 24323229 | MF, 2.2 ohm, 2W |
| R464 | 24366273 | CF, 27k ohm |
| R465 | 24366114 | CF, 110k ohm |
| R466 | 24366562 | CF, 5600 ohm |
| R469 | 24531150 | FR, 15 ohm, 1/2W |
| R470 | 24339568 | OMF, 0.56 ohm, 2W |
| R471 | 24531271 | FR, 270 ohm, 1/2W |
| R473 | 24366473 | CF, 47k ohm |
| R474 | 24366473 | CF, 47k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| R478 | 24376333 | CF, 33k ohm, 1/2W |
| R479 | 24531680 | FR, 68 ohm, 1/2W |
| R480 | 24552222 | OMF, 2200 ohm, 1/2W |
| R481 | 24366223 | CF, 22k ohm |
| R482 | 24366103 | CF, 10k ohm |
| R487 | 24366474 | CF, 470k ohm |
| R488 | 24366154 | CF, 150k ohm |
| R490 | 24366101 | CF, 100 ohm |
| R491 | 24366101 | CF, 100 ohm |
| R492 | 24366272 | CF, 2700 ohm |
| R499 | 24366182 | CF, 1800 ohm |
| R501 | 24366223 | CF, 22k ohm |
| R502 | 24366101 | CF, 100 ohm |
| R503 | 24366101 | CF, 100 ohm |
| R505 | 24366102 | CF, 1k ohm |
| R506 | 24366103 | CF, 10k ohm |
| R508 | 24366102 | CF, 1k ohm |
| R509 | 24366102 | CF, 1k ohm |
| R510 | 24366102 | CF, 1k ohm |
| R511 | 24366101 | CF, 100 ohm |
| R512 | 24366101 | CF, 100 ohm |
| R513 | 24366472 | CF, 4700 ohm |
| R514 | 24366472 | CF, 4700 ohm |
| R518 | 24366472 | CF, 4700 ohm |
| R519 | 24366101 | CF, 100 ohm |
| R520 | 24366103 | CF, 10k ohm |
| R521 | 24366223 | CF, 22k ohm |
| R522 | 24366473 | CF, 47k ohm |
| R609 | 24366563 | CF, 56k ohm |
| R610 | 24366103 | CF, 10k ohm |
| R611 | 24366103 | CF, 10k ohm |
| R612 | 24366103 | CF, 10k ohm |
| R661 | 24552221 | OMF, 220 ohm, 1/2W |
| R662 | 24552221 | OMF, 220 ohm, 1/2W |
| R670 | 24366272 | CF, 2700 ohm |
| R671 | 24366392 | CF, 3900 ohm |
| R672 | 24366272 | CF, 2700 ohm |
| R673 | 24366392 | CF, 3900 ohm |
| R674 | 24366332 | CF, 3300 ohm |
| R675 | 24366392 | CF, 3900 ohm (2876DD) |
| R675 | 24366472 | CF, 4700 ohm (2876DF) |
| R676 | 24366223 | CF, 22k ohm |
| R676 | 24366223 | CF, 22k ohm |
| R677 | 24366223 | CF, 22k ohm |
| R677 | 24366223 | CF, 22k ohm |
| R678 | 24366223 | CF, 22k ohm |
| R679 | 24366223 | CF, 22k ohm |
| R680 | 24366223 | CF, 22k ohm |
| R680 | 24366473 | CF, 47k ohm |
| R681 | 24366223 | CF, 22k ohm |
| R682 | 24366104 | CF, 100k ohm |
| R683 | 24366273 | CF, 27k ohm |
| R684 | 24366229 | CF, 2.2 ohm |
| R685 | 24366229 | CF, 2.2 ohm |
| R686 | 24366229 | CF, 2.2 ohm |
| R688 | 24366222 | CF, 2200 ohm |
| R690 | 24366681 | CF, 680 ohm |
| R691 | 24366681 | CF, 680 ohm |
| R692 | 24366681 | CF, 680 ohm |
| R693 | 24366681 | CF, 680 ohm |
| R702 | 24552221 | OMF, 220 ohm, 1/2W |
| R712 | 24366101 | CF, 100 ohm |
| R715 | 24366393 | CF, 39k ohm |
| R716 | 24366273 | CF, 27k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| R717 | 24366333 | CF, 33k ohm |
| R718 | 24366102 | CF, 1k ohm |
| R722 | 24552471 | OMF, 470 ohm, 1/2W |
| R723 | 24366151 | CF, 150 ohm |
| R724 | 24366121 | CF, 120 ohm |
| R725 | 24366182 | CF, 1800 ohm |
| R730 | 24552100 | OMF, 10 ohm, 1/2W |
| R731 | 24553331 | OMF, 330 ohm, 1W |
| R732 | 24366220 | CF, 22 ohm |
| R733 | 24366683 | CF, 68k ohm |
| R734 | 24366220 | CF, 22 ohm |
| R735 | 24366683 | CF, 68k ohm |
| R736 | 24366560 | CF, 56 ohm |
| R737 | 24366152 | CF, 1500 ohm |
| R738 | 24366123 | CF, 12k ohm |
| R739 | 24366152 | CF, 1500 ohm |
| R740 | 24366560 | CF, 56 ohm |
| R741 | 24366279 | CF, 2.7 ohm |
| R742 | 24366279 | CF, 2.7 ohm |
| R743 | 24554101 | OMF, 100 ohm, 2W |
| R744 | 24366122 | CF, 1200 ohm |
| R745 | 24366122 | CF, 1200 ohm |
| R801 | 24009954 | Metal-Glazed Resistor, 2.2M ohm, 1/2W |
| R802 | 24321568 | MF, 0.56 ohm, 1/2W |
| R803 | 24382683 | OMF, 68k ohm, 1W |
| R805 | 24552101 | OMF, 100 ohm, 1/2W |
| R806 | 24552392 | OMF, 3900 ohm, 1/2W |
| R808 | 24019340 | PTC Thermistor, 18 ohm, 290V |
| R810 | 24007492 | Cement, 2.2 ohm, 20W |
| R811 | 24568271 | Cement, 270 ohm, 7W |
| R814 | 24366122 | CF, 1200 ohm |
| R815 | 24552102 | OMF, 1k ohm, 1/2W |
| R816 | 24323759 | OMF, 7.5 ohm, 2W |
| R818 | 24322228 | MF, 0.22 ohm, 1W |
| R819 | 24321279 | MF, 2.7 ohm, 1/2W |
| R821 | 24366101 | CF, 100 ohm |
| R822 | 24552103 | OMF, 10k ohm, 1/2W |
| R823 | 24366272 | CF, 2700 ohm |
| R824 | 24569101 | Cement, 100 ohm, 10W |
| R825 | 24569100 | Cement, 10 ohm, 10W |
| R827 | 24366681 | CF, 680 ohm |
| R828 | 24366821 | CF, 820 ohm |
| R829 | 24322228 | MF, 0.22 ohm, 1W |
| R830 | 24366471 | CF, 470 ohm |
| R831 | 24366471 | CF, 470 ohm |
| R832 | 24366472 | CF, 4700 ohm |
| R833 | 24366222 | CF, 2200 ohm |
| R841 | 24531120 | FR, 12 ohm, 1/2W |
| R842 | 24552392 | OMF, 3900 ohm, 1/2W |
| R846 | 24366561 | CF, 560 ohm |
| R847 | 24366472 | CF, 4700 ohm |
| R890 | 24553333 | OMF, 33k ohm, 1W |
| ⚠R899 | 24005007 | Metal-Glazed Resistor, 8.2M ohm, 1W |
| R901 | 24376821 | CF, 820 ohm, 1/2W |
| R902 | 24376821 | CF, 820 ohm, 1/2W |
| R903 | 24376821 | CF, 820 ohm, 1/2W |
| R904 | 24366472 | CF, 4700 ohm |
| R905 | 24366150 | CF, 15 ohm |
| R906 | 24366102 | CF, 1k ohm |
| R907 | 24366102 | CF, 1k ohm |
| R908 | 24366102 | CF, 1k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| R909 | 24366222 | CF, 2200 ohm |
| R914 | 24366101 | CF, 100 ohm |
| R915 | 24366101 | CF, 100 ohm |
| R916 | 24366330 | CF, 33 ohm |
| R917 | 24366181 | CF, 180 ohm |
| R918 | 24366100 | CF, 10 ohm |
| R920 | 24000568 | FR, 4.7 ohm, 1W |
| R921 | 24366101 | CF, 100 ohm |
| R922 | 24366101 | CF, 100 ohm |
| R924 | 24366100 | CF, 10 ohm |
| R925 | 24366181 | CF, 180 ohm |
| R928 | 24366101 | CF, 100 ohm |
| R929 | 24366101 | CF, 100 ohm |
| R930 | 24366100 | CF, 10 ohm |
| R932 | 24366332 | CF, 3300 ohm |
| R933 | 24366750 | CF, 75 ohm |
| R934 | 24366391 | CF, 390 ohm |
| R935 | 24366821 | CF, 820 ohm |
| R936 | 24366750 | CF, 75 ohm |
| R937 | 24366181 | CF, 180 ohm |
| R939 | 24366101 | CF, 100 ohm |
| R942 | 24366392 | CF, 3900 ohm |
| R943 | 24366392 | CF, 3900 ohm |
| R944 | 24366392 | CF, 3900 ohm |
| R945 | 24366330 | CF, 33 ohm |
| R946 | 24366330 | CF, 33 ohm |
| R960 | 24383153 | OMF, 15k ohm, 2W |
| R961 | 24383153 | OMF, 15k ohm, 2W |
| R962 | 24383153 | OMF, 15k ohm, 2W |
| R963 | 24383153 | OMF, 15k ohm, 2W |
| R964 | 24383153 | OMF, 15k ohm, 2W |
| R965 | 24383153 | OMF, 15k ohm, 2W |
| R966 | 24383153 | OMF, 15k ohm, 2W |
| R967 | 24383153 | OMF, 15k ohm, 2W |
| R968 | 24383153 | OMF, 15k ohm, 2W |
| R969 | 24366101 | CF, 100 ohm |
| R970 | 24366101 | CF, 100 ohm |
| R971 | 24366101 | CF, 100 ohm |
| R977 | 24366681 | CF, 680 ohm |
| R980 | 24366471 | CF, 470 ohm |
| R981 | 24366821 | CF, 820 ohm |
| R982 | 24366103 | CF, 10k ohm |
| R983 | 24366222 | CF, 2200 ohm |
| R984 | 24366152 | CF, 1500 ohm |
| R985 | 24366471 | CF, 470 ohm |
| R986 | 24366681 | CF, 680 ohm |
| R987 | 24366681 | CF, 680 ohm |
| R988 | 24366472 | CF, 4700 ohm |
| R989 | 24366332 | CF, 3300 ohm |
| R990 | 24366222 | CF, 2200 ohm |
| R991 | 24366681 | CF, 680 ohm |
| R992 | 24366150 | CF, 15 ohm |
| R4034 | 24366332 | CF, 3300 ohm |
| R4301 | 24366222 | CF, 2200 ohm |
| R4302 | 24366103 | CF, 10k ohm |
| R4303 | 24019090 | MF, 330k ohm, ±1%, 1/4W |
| R4305 | 24366471 | CF, 470 ohm |
| R4306 | 24366472 | CF, 4700 ohm |
| R4350 | 24066873 | VR, 100k ohm, 0.3W |
| R4401 | 24366103 | CF, 10k ohm |
| R4402 | 24366222 | CF, 2200 ohm |
| R4403 | 24000639 | MF, 22k ohm, ±1%, 1/4W |
| R4404 | 24000364 | MF, 1800 ohm, ±1%, 1/4W |
| R4405 | 24000247 | MF, 39k ohm, ±1%, 1/4W |

| Location No. | Part No. | Description |
|---|---|---|
| R4406 | 24000220 | MF, 390 ohm, ±1%, 1/4W |
| R4408 | 24000637 | MF, 15k ohm, ±1%, 1/4W |
| R4409 | 24000361 | MF, 1300 ohm, ±1%, 1/4W |
| R4410 | 24552470 | OMF, 47 ohm, 1/2W |
| R4411 | 24366472 | CF, 4700 ohm |
| R4412 | 24366103 | CF, 10k ohm |
| R4413 | 24366751 | CF, 750 ohm |
| R4420 | 24000639 | MF, 22k ohm, ±1%, 1/4W |
| R4421 | 24366103 | CF, 10k ohm |
| R4422 | 24366473 | CF, 47k ohm |
| R4423 | 24366223 | CF, 22k ohm |
| R4424 | 24366103 | CF, 10k ohm |
| R4450 | 24066878 | VR, 2k ohm, 0.3W |
| RA04 | 24366102 | CF, 1k ohm |
| RA05 | 24366102 | CF, 1k ohm |
| RA07 | 24366102 | CF, 1k ohm |
| RA08 | 24366102 | CF, 1k ohm |
| RA09 | 24366102 | CF, 1k ohm |
| RA10 | 24366102 | CF, 1k ohm |
| RA11 | 24366102 | CF, 1k ohm |
| RA12 | 24366473 | CF, 47k ohm |
| RA13 | 24366153 | CF, 15k ohm |
| RA16 | 24366102 | CF, 1k ohm |
| RA17 | 24366102 | CF, 1k ohm |
| RA18 | 24366102 | CF, 1k ohm |
| RA27 | 24366102 | CF, 1k ohm |
| RA33 | 24366102 | CF, 1k ohm |
| RA35 | 24366102 | CF, 1k ohm |
| RA36 | 24366472 | CF, 4700 ohm |
| RA37 | 24366101 | CF, 100 ohm |
| RA38 | 24366101 | CF, 100 ohm |
| RA49 | 24366470 | CF, 47 ohm |
| RA61 | 24366103 | CF, 10k ohm |
| RA62 | 24366103 | CF, 10k ohm |
| RA63 | 24366103 | CF, 10k ohm |
| RA64 | 24366103 | CF, 10k ohm |
| RA67 | 24366472 | CF, 4700 ohm |
| RA68 | 24366472 | CF, 4700 ohm |
| RA70 | 24366333 | CF, 33k ohm |
| RA71 | 24366683 | CF, 68k ohm |
| RA72 | 24366223 | CF, 22k ohm |
| RA73 | 24366103 | CF, 10k ohm |
| RA74 | 24366103 | CF, 10k ohm |
| RA75 | 24366333 | CF, 33k ohm |
| RA76 | 24366103 | CF, 10k ohm |
| RA77 | 24366472 | CF, 4700 ohm |
| RA78 | 24366472 | CF, 4700 ohm |
| RA79 | 24366103 | CF, 10k ohm |
| RB01 | 24366271 | CF, 270 ohm |
| RB02 | 24366271 | CF, 270 ohm |
| RB09 | 24366470 | CF, 47 ohm |
| RB10 | 24366101 | CF, 100 ohm |
| RB11 | 24366103 | CF, 10k ohm |
| RB30 | 24366103 | CF, 10k ohm |
| RB40 | 24366103 | CF, 10k ohm |
| RB41 | 24366182 | CF, 1800 ohm |
| RB42 | 24366102 | CF, 1k ohm |
| RB43 | 24366103 | CF, 10k ohm |
| RB44 | 24366103 | CF, 10k ohm |
| RB45 | 24366101 | CF, 100 ohm |
| RF01 | 24366222 | CF, 2200 ohm |
| RF03 | 24366472 | CF, 4700 ohm |
| RF04 | 24366472 | CF, 4700 ohm |
| RF06 | 24366102 | CF, 1k ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RF08 | 24366100 | CF, 10 ohm |
| RF09 | 24366100 | CF, 10 ohm |
| RF10 | 24366100 | CF, 10 ohm |
| RF11 | 24366103 | CF, 10k ohm |
| RF12 | 24366101 | CF, 100 ohm |
| RF13 | 24366101 | CF, 100 ohm |
| RF14 | 24366101 | CF, 100 ohm |
| RF15 | 24366103 | CF, 10k ohm |
| RF16 | 24366471 | CF, 470 ohm |
| RF20 | 24366472 | CF, 4700 ohm |
| RF21 | 24366102 | CF, 1k ohm |
| RF22 | 24366102 | CF, 1k ohm |
| RF26 | 24366102 | CF, 1k ohm |
| RG01 | 24366223 | CF, 22k ohm |
| RG02 | 24366223 | CF, 22k ohm |
| RG03 | 24366101 | CF, 100 ohm |
| RG04 | 24366101 | CF, 100 ohm |
| RG05 | 24366101 | CF, 100 ohm |
| RG07 | 24366101 | CF, 100 ohm (2876DD) |
| RG08 | 24366101 | CF, 100 ohm (2876DD) |
| RG09 | 24366103 | CF, 10k ohm (2876DD) |
| RG10 | 24366103 | CF, 10k ohm (2876DD) |
| RG11 | 24366103 | CF, 10k ohm (2876DD) |
| RG12 | 24366103 | CF, 10k ohm (2876DD) |
| RQ01 | 24366102 | CF, 1k ohm |
| RQ03 | 24366102 | CF, 1k ohm |
| RQ04 | 24366511 | CF, 510 ohm |
| RQ05 | 24366471 | CF, 470 ohm |
| RQ06 | 24366471 | CF, 470 ohm |
| RQ07 | 24366103 | CF, 10k ohm |
| RQ08 | 24366102 | CF, 1k ohm |
| RQ09 | 24366102 | CF, 1k ohm |
| RQ10 | 24366102 | CF, 1k ohm |
| RQ11 | 24366561 | CF, 560 ohm |
| RQ12 | 24366561 | CF, 560 ohm |
| RQ13 | 24366203 | CF, 20k ohm |
| RQ14 | 24366273 | CF, 27k ohm |
| RQ20 | 24366563 | CF, 56k ohm |
| RR12 | 24366151 | CF, 150 ohm |
| RR13 | 24366151 | CF, 150 ohm |
| RR14 | 24366151 | CF, 150 ohm |
| RR21 | 24366102 | CF, 1k ohm |
| RR22 | 24366102 | CF, 1k ohm |
| RR23 | 24366562 | CF, 5600 ohm |
| RR24 | 24366332 | CF, 3300 ohm |
| RR25 | 24366302 | CF, 3k ohm |
| RR27 | 24366162 | CF, 1600 ohm |
| RR29 | 24366101 | CF, 100 ohm |
| RR30 | 24366101 | CF, 100 ohm |
| RR33 | 24366101 | CF, 100 ohm |
| RR34 | 24366102 | CF, 1k ohm |
| RR35 | 24366102 | CF, 1k ohm |
| RR36 | 24366103 | CF, 10k ohm |
| RR38 | 24366222 | CF, 2200 ohm |
| RR39 | 24366222 | CF, 2200 ohm |
| RR40 | 24366471 | CF, 470 ohm |
| RR41 | 24366473 | CF, 47k ohm |
| RR42 | 24366101 | CF, 100 ohm |
| RR43 | 24366101 | CF, 100 ohm |
| RR44 | 24366101 | CF, 100 ohm |
| RR50 | 24366101 | CF, 100 ohm |
| RR51 | 24366101 | CF, 100 ohm |
| RR52 | 24366101 | CF, 100 ohm |
| RR60 | 24366472 | CF, 4700 ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RR61 | 24366392 | CF, 3900 ohm |
| RR62 | 24366302 | CF, 3k ohm |
| RR63 | 24366102 | CF, 1k ohm |
| RR64 | 24366162 | CF, 1600 ohm |
| RR65 | 24366102 | CF, 1k ohm |
| RR66 | 24366101 | CF, 100 ohm |
| RR67 | 24366101 | CF, 100 ohm |
| RS01 | 24366681 | CF, 680 ohm |
| RS02 | 24366681 | CF, 680 ohm |
| RS03 | 24366101 | CF, 100 ohm |
| RS04 | 24366101 | CF, 100 ohm |
| RS05 | 24366472 | CF, 4700 ohm |
| RS06 | 24366472 | CF, 4700 ohm |
| RS07 | 24366472 | CF, 4700 ohm |
| RS08 | 24366472 | CF, 4700 ohm |
| RS09 | 24366472 | CF, 4700 ohm |
| RS10 | 24366472 | CF, 4700 ohm |
| RS11 | 24366101 | CF, 100 ohm |
| RS13 | 24366101 | CF, 100 ohm |
| RS14 | 24366101 | CF, 100 ohm |
| RS15 | 24366104 | CF, 100k ohm |
| RS16 | 24366104 | CF, 100k ohm |
| RS17 | 24366223 | CF, 22k ohm |
| RS18 | 24366223 | CF, 22k ohm |
| RS19 | 24366102 | CF, 1k ohm |
| RS20 | 24366102 | CF, 1k ohm |
| RS21 | 24366222 | CF, 2200 ohm |
| RS22 | 24366222 | CF, 2200 ohm |
| RS23 | 24366101 | CF, 100 ohm |
| RS24 | 24366101 | CF, 100 ohm |
| RS27 | 24366104 | CF, 100k ohm |
| RS28 | 24366104 | CF, 100k ohm |
| RS29 | 24366223 | CF, 22k ohm |
| RS30 | 24366223 | CF, 22k ohm |
| RS31 | 24366103 | CF, 10k ohm |
| RS32 | 24366104 | CF, 100k ohm |
| RS35 | 24366223 | CF, 22k ohm |
| RS36 | 24366223 | CF, 22k ohm |
| RS37 | 24366104 | CF, 100k ohm |
| RS38 | 24366104 | CF, 100k ohm |
| RS43 | 24366681 | CF, 680 ohm |
| RS44 | 24366681 | CF, 680 ohm |
| RS45 | 24366681 | CF, 680 ohm |
| RS46 | 24366681 | CF, 680 ohm |
| RV01 | 24366101 | CF, 100 ohm |
| RV02 | 24366101 | CF, 100 ohm |
| RV03 | 24366101 | CF, 100 ohm |
| RV04 | 24366101 | CF, 100 ohm |
| RV05 | 24366101 | CF, 100 ohm |
| RV06 | 24366101 | CF, 100 ohm |
| RV07 | 24366162 | CF, 1600 ohm |
| RV08 | 24366162 | CF, 1600 ohm |
| RV09 | 24366101 | CF, 100 ohm |
| RV10 | 24366101 | CF, 100 ohm |
| RV12 | 24366681 | CF, 680 ohm |
| RV13 | 24366681 | CF, 680 ohm |
| RV16 | 24366471 | CF, 470 ohm |
| RV18 | 24366123 | CF, 12k ohm |
| RV19 | 24366101 | CF, 100 ohm |
| RV22 | 24366102 | CF, 1k ohm |
| RV23 | 24552101 | OMF, 100 ohm, 1/2W |
| RV25 | 24366101 | CF, 100 ohm |
| RV26 | 24366181 | CF, 180 ohm |
| RV27 | 24366750 | CF, 75 ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RV28 | 24366683 | CF, 68k ohm |
| RV29 | 24366273 | CF, 27k ohm |
| RV30 | 24366750 | CF, 75 ohm |
| RV32 | 24366750 | CF, 75 ohm |
| RV33 | 24366123 | CF, 12k ohm |
| RV34 | 24366123 | CF, 12k ohm |
| RV35 | 24366103 | CF, 10k ohm |
| RV36 | 24366101 | CF, 100 ohm |
| RV38 | 24366750 | CF, 75 ohm |
| RV40 | 24366471 | CF, 470 ohm |
| RV41 | 24366104 | CF, 100k ohm |
| RV42 | 24366471 | CF, 470 ohm |
| RV43 | 24366471 | CF, 470 ohm |
| RV44 | 24366471 | CF, 470 ohm |
| RV45 | 24366100 | CF, 10 ohm |
| RV46 | 24366112 | CF, 1100 ohm |
| RV47 | 24366102 | CF, 1k ohm |
| RV48 | 24366102 | CF, 1k ohm |
| RV49 | 24366102 | CF, 1k ohm |
| RV60 | 24366471 | CF, 470 ohm |
| RV61 | 24552101 | OMF, 100 ohm, 1/2W |
| RV62 | 24366101 | CF, 100 ohm |
| RV63 | 24552820 | OMF, 82 ohm, 1/2W |
| RV64 | 24366750 | CF, 75 ohm |
| RV65 | 24552101 | OMF, 100 ohm, 1/2W |
| RV66 | 24366101 | CF, 100 ohm |
| RV67 | 24552820 | OMF, 82 ohm, 1/2W |
| RV68 | 24366750 | CF, 75 ohm |
| RV69 | 24366101 | CF, 100 ohm |
| RV70 | 24366101 | CF, 100 ohm |
| RV71 | 24366472 | CF, 4700 ohm |
| RV75 | 24366332 | CF, 3300 ohm |
| RV76 | 24366220 | CF, 22 ohm |
| RV77 | 24366182 | CF, 1800 ohm |
| RV78 | 24366221 | CF, 220 ohm |
| RV79 | 24366680 | CF, 68 ohm |
| RV80 | 24366102 | CF, 1k ohm |
| RV81 | 24366472 | CF, 4700 ohm |
| RV81 | 24366750 | CF, 75 ohm |
| RV82 | 24366153 | CF, 15k ohm |
| RV83 | 24366103 | CF, 10k ohm |
| RV85 | 24366750 | CF, 75 ohm |
| RV86 | 24366750 | CF, 75 ohm |
| RV87 | 24366750 | CF, 75 ohm |
| RV89 | 24366750 | CF, 75 ohm |
| RV90 | 24366681 | CF, 680 ohm |
| RV91 | 24366681 | CF, 680 ohm |
| RV92 | 24366100 | CF, 10 ohm |
| RV93 | 24366104 | CF, 100k ohm |
| RV94 | 24366103 | CF, 10k ohm |
| RV95 | 24366222 | CF, 2200 ohm |
| RV96 | 24366391 | CF, 390 ohm |
| RV97 | 24366101 | CF, 100 ohm |
| RV98 | 24366750 | CF, 75 ohm |
| RX103 | 24871471 | Chip, 470 ohm, 1/8W |
| RX104 | 24011105 | Chip, 1M ohm, 1/20W |
| RX105 | 24011271 | Chip, 270 ohm, 1/20W |
| RX106 | 24011102 | Chip, 1k ohm, 1/20W |
| RX108 | 24011331 | Chip, 330 ohm, 1/20W |
| RX109 | 24871221 | Chip, 220 ohm, 1/8W |
| RX110 | 24011680 | Chip, 68 ohm, 1/20W |
| RX111 | 24011561 | Chip, 560 ohm, 1/20W |
| RX112 | 24871221 | Chip, 220 ohm, 1/8W |
| RX120 | 24011470 | Chip, 47 ohm, 1/20W |

| Location No. | Part No. | Description |
|---|---|---|
| RX121 | 24011152 | Chip, 1500 ohm, 1/20W |
| RX123 | 24011331 | Chip, 330 ohm, 1/20W |
| RX125 | 24011102 | Chip, 1k ohm, 1/20W |
| RX126 | 24871471 | Chip, 470 ohm, 1/8W |
| RX127 | 24011471 | Chip, 470 ohm, 1/20W |
| RX128 | 24871471 | Chip, 470 ohm, 1/8W |
| RX136 | 24011470 | Chip, 47 ohm, 1/20W |
| RX137 | 24011152 | Chip, 1500 ohm, 1/20W |
| RX140 | 24011102 | Chip, 1k ohm, 1/20W |
| RX141 | 24871471 | Chip, 470 ohm, 1/8W |
| RX142 | 24011470 | Chip, 47 ohm, 1/20W |
| RX143 | 24011561 | Chip, 560 ohm, 1/20W |
| RX144 | 24871221 | Chip, 220 ohm, 1/8W |
| RX145 | 24011331 | Chip, 330 ohm, 1/20W |
| RX146 | 24011470 | Chip, 47 ohm, 1/20W |
| RX201 | 24011103 | Chip, 10k ohm, 1/20W |
| RX202 | 24011681 | Chip, 680 ohm, 1/20W |
| RX203 | 24011151 | Chip, 150 ohm, 1/20W |
| RX204 | 24011472 | ChIP, 4700 ohm, 1/20W |
| RX205 | 24011332 | Chip, 3300 ohm, 1/20W |
| RX206 | 24011331 | Chip, 330 ohm, 1/20W |
| RX207 | 24011102 | Chip, 1k ohm, 1/20W |
| RX208 | 24011332 | Chip, 3300 ohm, 1/20W |
| RX209 | 24011681 | Chip, 680 ohm, 1/20W |
| RX223 | 24011220 | Chip, 22 ohm, 1/20W |
| RX225 | 24011220 | Chip, 22 ohm, 1/20W |
| RX301 | 24011151 | Chip, 150 ohm, 1/20W |
| RX301 | 24011151 | Chip, 150 ohm, 1/20W |
| RX302 | 24011102 | Chip, 1k ohm, 1/20W |
| RX303 | 24011220 | Chip, 22 ohm, 1/20W |
| RX304 | 24871331 | Chip, 330 ohm, 1/8W |
| RX305 | 24011221 | Chip, 220 ohm, 1/20W |
| RX306 | 24011821 | Chip, 820 ohm, 1/20W |
| RX307 | 24011220 | Chip, 22 ohm, 1/20W |
| RX308 | 24871331 | Chip, 330 ohm, 1/8W |
| RX309 | 24011221 | Chip, 220 ohm, 1/20W |
| RX310 | 24011821 | Chip, 820 ohm, 1/20W |
| RX311 | 24011220 | Chip, 22 ohm, 1/20W |
| RX312 | 24871331 | Chip, 330 ohm, 1/8W |
| RX313 | 24871331 | Chip, 330 ohm, 1/8W |
| RX314 | 24871331 | Chip, 330 ohm, 1/8W |
| RX315 | 24871471 | Chip, 470 ohm, 1/8W |
| RX400 | 24011102 | Chip, 1k ohm, 1/20W |
| RX401 | 24011471 | Chip, 470 ohm, 1/20W |
| RX402 | 24011471 | Chip, 470 ohm, 1/20W |
| RX403 | 24011471 | Chip, 470 ohm, 1/20W |
| RX404 | 24011102 | Chip, 1k ohm, 1/20W |
| RX405 | 24011221 | Chip, 220 ohm, 1/20W |
| RX406 | 24011221 | Chip, 220 ohm, 1/20W |
| RX407 | 24011221 | Chip, 220 ohm, 1/20W |
| RX408 | 24011221 | Chip, 220 ohm, 1/20W |
| RX409 | 24011121 | Chip, 120 ohm, 1/20W |
| RZ01 | 24366471 | CF, 470 ohm |
| RZ02 | 24366152 | CF, 1500 ohm |
| RZ04 | 24366332 | CF, 3300 ohm |
| RZ05 | 24366332 | CF, 3300 ohm |
| RZ06 | 24366821 | CF, 820 ohm |
| RZ07 | 24366272 | CF, 2700 ohm |
| RZ08 | 24366302 | CF, 3k ohm |
| RZ12 | 24366471 | CF, 470 ohm |
| RZ18 | 24366821 | CF, 820 ohm |
| RZ19 | 24366471 | CF, 470 ohm |
| RZ20 | 24366122 | CF, 1200 ohm |
| RZ21 | 24366680 | CF, 68 ohm |

| Location No. | Part No. | Description |
|---|---|---|
| RZ22 | 24366101 | CF, 100 ohm |
| RZ23 | 24366821 | CF, 820 ohm |
| RZ24 | 24366821 | CF, 820 ohm |
| RZ25 | 24366101 | CF, 100 ohm |
| RZ26 | 24366101 | CF, 100 ohm |
| RZ28 | 24366821 | CF, 820 ohm |
| RZ29 | 24366331 | CF, 330 ohm |
| RZ30 | 24366331 | CF, 330 ohm |
| RZ31 | 24366102 | CF, 1k ohm |
| **COILS & TRANSFORMERS** | | |
| L101 | 23221803 | Coil, Choke, TLN3040D |
| L201 | 23238710 | Coil, Peaking, TRF4220AJ |
| L203 | 23238708 | Coil, Peaking, TRF4330AJ |
| L301 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L302 | 23289101 | Coil, Peaking, TRF4101AF |
| L400 | 23289101 | Coil, Peaking, TRF4101AF |
| L410 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L441 | 23233966 | Coil, Linearity, TLN2158AY |
| L442 | 23248164 | Coil, Choke, TLN3437AD |
| L443 | 23248165 | Coil, Choke, TLN3438AD |
| L449 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L461 | 23248111 | Coil, Choke, TLN3349D |
| L462 | ------------- | Supplied with V901. |
| L470 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L491 | 23211923 | Coil, Choke, AT4043/100 |
| L501 | 23289479 | Coil, Peaking, TRF44R7AF |
| L503 | 23289470 | Coil, Peaking, TRF4470AF |
| L507 | 23103824 | Coil, TEM2028K |
| L508 | 23103824 | Coil, TEM2028K |
| L509 | 23103824 | Coil, TEM2028K |
| L510 | 23238718 | Coil, Peaking, TRF4479AJ |
| L676 | 23238562 | Coil, Peaking, TRF4109AJ |
| L677 | 23238720 | Coil, Peaking, TRF4339AJ |
| L682 | 23289109 | Coil, Peaking, TRF41R0AF |
| L683 | 23289339 | Coil, Peaking, TRF43R3AF |
| L684 | 23238562 | Coil, Peaking, TRF4109AJ |
| L685 | 23238562 | Coil, Peaking, TRF4109AJ |
| L701 | 23289100 | Coil, Peaking, TRF4100AF |
| L702 | 23261974 | Coil, Choke, HC5-035 |
| L704 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L705 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L811 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L814 | 23221747 | Coil, Choke, TRF9253D |
| L875 | 23280016 | Coil, Peaking, TRF4100AZ |
| L883 | 23221747 | Coil, Choke, TRF9253D |
| L885 | 23248073 | Coil, Choke, TLN3299D |
| L886 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L889 | 23280016 | Coil, Peaking, TRF4100AZ |
| L891 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L892 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L893 | 23222694 | Coil, Width, TLN2026 |
| L896 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| L897 | 23222694 | Coil, Width, TLN2026 |
| ⚠L901 | 23200276 | Coil, Degaussing, TSB-2330BR |
| L902 | 23289101 | Coil, Peaking, TRF4101AF |
| L903 | 23289101 | Coil, Peaking, TRF4101AF |
| L904 | 23289101 | Coil, Peaking, TRF4101AF |
| L905 | 23289220 | Coil, Peaking, TRF4220AF |
| L906 | 23289220 | Coil, Peaking, TRF4220AF |
| L907 | 23289220 | Coil, Peaking, TRF4220AF |
| L908 | 23289100 | Coil, Peaking, TRF4100AF |
| L910 | 23289109 | Coil, Peaking, TRF41R0AF |
| L911 | 23289101 | Coil, Peaking, TRF4101AF |

| Location No. | Part No. | Description |
|---|---|---|
| L912 | 23289150 | Coil, Peaking, TRF4150AF |
| L913 | 23289150 | Coil, Peaking, TRF4150AF |
| L914 | 23289150 | Coil, Peaking, TRF4150AF |
| L4400 | 23221886 | Coil, Choke, TLN3073 |
| L4430 | 23289680 | Coil, Peaking, TRF4680AF |
| LA01 | 23289100 | Coil, Peaking, TRF4100AF |
| LC05 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC06 | 23103859 | Coil (Ferrite Bead), TEM2011 |
| LC07 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC08 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC30 | 23238562 | Coil, Peaking, TRF4109AJ |
| LC31 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF01 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF02 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF03 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF04 | 23238506 | Coil, Peaking, TRF4229AJ |
| LF06 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF07 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF08 | 23238714 | Coil, Peaking, TRF4100AJ |
| LF09 | 23238714 | Coil, Peaking, TRF4100AJ |
| LF10 | 23238562 | Coil, Peaking, TRF4109AJ |
| LF11 | 23289109 | Coil, Peaking, TRF41R0AF |
| LF13 | 23289100 | Coil, Peaking, TRF4100AF |
| LQ01 | 23238709 | Coil, Peaking, TRF4270AJ |
| LQ02 | 23238718 | Coil, Peaking, TRF4479AJ |
| LQ03 | 23238718 | Coil, Peaking, TRF4479AJ |
| LQ04 | 23238718 | Coil, Peaking, TRF4479AJ |
| LV03 | 23103824 | Coil, TEM2028K |
| LV06 | 23289109 | Coil, Peaking, TRF41R0AF |
| LV07 | 23289109 | Coil, Peaking, TRF41R0AF |
| LV08 | 23289330 | Coil, Peaking, TRF4330AF |
| LV09 | 23289100 | Coil, Peaking, TRF4100AF |
| LV42 | 23289100 | Coil, Peaking, TRF4100AF |
| LV43 | 23289100 | Coil, Peaking, TRF4100AF |
| LV49 | 23103824 | Coil, TEM2028K |
| LX101 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX102 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX103 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX104 | 23237989 | Coil, Peaking, TRF4689AC |
| LX105 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX106 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX107 | 23289270 | Coil, Peaking, TRF4270AF |
| LX108 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX109 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX110 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX111 | 23289270 | Coil, Peaking, TRF4270AF |
| LX113 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX201 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX202 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX203 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX204 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX209 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX210 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX212 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX214 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX215 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX216 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX217 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX218 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX301 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX302 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX303 | 24000824 | Chip, Jumper, 2125 type |
| LX306 | 23103822 | Chip (Ferrite Bead), TEM2117T |
| LX307 | 23289229 | Coil, Peaking, TRF42R2AF |
| LX308 | 23289100 | Coil, Peaking, TRF4100AF |
| LX309 | 23289100 | Coil, Peaking, TRF4100AF |
| LX400 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX401 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX402 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX403 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX404 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX405 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX406 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX407 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX408 | 23289109 | Coil, Peaking, TRF41R0AF |
| LX409 | 23289109 | Coil, Peaking, TRF41R0AF |
| LZ01 | 23238712 | Coil, Peaking, TRF4150AJ |
| LZ02 | 23238716 | Coil, Peaking, TRF4689AJ |
| LZ03 | 23238716 | Coil, Peaking, TRF4689AJ |
| LZ04 | 23238709 | Coil, Peaking, TRF4270AJ |
| LZ05 | 23238716 | Coil, Peaking, TRF4689AJ |
| LZ06 | 23238709 | Coil, Peaking, TRF4270AJ |
| LZ07 | 23238709 | Coil, Peaking, TRF4270AJ |
| LZ08 | 23238707 | Coil, Peaking, TRF4390AJ |
| LZ09 | 70131060 | Filter, ZBF253D-00 |
| LZ10 | 70131060 | Filter, ZBF253D-00 |
| LZ11 | 23289270 | Coil, Peaking, TRF4270AF |
| T401 | 23224333 | Transformer, Horiz. Drive, TLN1080 |
| ⚠T461 | 23236513 | Transformer, Flyback, TFB4137AR |
| T801 | 23211670 | Line Filter, TRF3164G |
| ⚠T803 | 23217350 | Transformer, Converter, TPW3367AR |
| T804 | 23211670 | Line Filter, TRF3164G |
| **SEMICONDUCTORS** | | |
| Q200 | A6330059 | Transistor, 2SC2482(C) |
| Q201 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q204 | A6317440 | Transistor, 2SC1815-Y |
| Q205 | A6317440 | Transistor, 2SC1815-Y |
| Q207 | A6342206 | Transistor, 2SC2878-A(TE |
| Q301 | 23905610 | IC, LA7846N |
| Q302 | B0384625 | IC, TA8859CP |
| Q303 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q304 | A6317440 | Transistor, 2SC1815-Y |
| Q360 | A6002040 | Transistor, RN1204 |
| Q361 | A6002040 | Transistor, RN1204 |
| Q362 | A6002050 | Transistor, RN1205 |
| Q370 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q402 | A6325419 | Transistor, 2SC2235-O(FA |
| Q404 | A6371775 | Transistor, 2SC5144 |
| Q418 | 23314141 | Transistor, 2SC3852 |
| Q420 | 23314141 | Transistor, 2SC3852 |
| Q421 | A6317440 | Transistor, 2SC1815-Y |
| Q430 | 23314141 | Transistor, 2SC3852 |
| Q460 | 23314850 | Transistor, 2SA1788-E |
| Q461 | A6317440 | Transistor, 2SC1815-Y |
| Q462 | A6317440 | Transistor, 2SC1815-Y |
| Q470 | A6317440 | Transistor, 2SC1815-Y |
| Q501 | B0385990 | IC, TA1259N |
| Q502 | A6317440 | Transistor, 2SC1815-Y |
| Q503 | A6317440 | Transistor, 2SC1815-Y |
| Q510 | A6317440 | Transistor, 2SC1815-Y |
| Q518 | A6317440 | Transistor, 2SC1815-Y |
| Q611 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q612 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q670 | B0377341 | IC, TA8256H(V31 |

| Location No. | Part No. | Description |
|---|---|---|
| Q671 | A6342206 | Transistor, 2SC2878-A(TE |
| Q672 | A6342206 | Transistor, 2SC2878-A(TE |
| Q673 | A6342206 | Transistor, 2SC2878-A(TE |
| Q688 | A6002040 | Transistor, RN1204 |
| Q705 | A6317440 | Transistor, 2SC1815-Y |
| Q706 | A6317440 | Transistor, 2SC1815-Y |
| Q707 | A6734590 | Transistor, 2SC752(G)TM-Y |
| Q709 | A6317440 | Transistor, 2SC1815-Y |
| Q710 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q711 | 23314911 | Transistor, 2SB1569A |
| Q712 | 23314914 | Transistor, 2SD2400A |
| Q719 | A6319311 | Transistor, 2SC1959-Y(TE |
| Q801 | 23905084 | IC, STR-S6709 |
| Q802 | 23314141 | Transistor, 2SC3852 |
| ⚠ Q826 | A8643108 | Photo Coupler, TLP621(GR-LF |
| Q830 | 23314141 | Transistor, 2SC3852 |
| Q831 | 23314141 | Transistor, 2SC3852 |
| Q832 | 23905977 | IC, PQ09RD11 |
| Q840 | 23318299 | IC, L78MR05 |
| Q901 | A6368700 | Transistor, 2SC4544 |
| Q902 | A6317440 | Transistor, 2SC1815-Y |
| Q903 | A6368700 | Transistor, 2SC4544 |
| Q904 | A6317440 | Transistor, 2SC1815-Y |
| Q905 | A6368700 | Transistor, 2SC4544 |
| Q906 | A6317440 | Transistor, 2SC1815-Y |
| Q907 | A6509154 | Transistor, 2SA562TM-Y(T) |
| Q908 | A6321265 | Transistor, 2SC2120-Y(TE) |
| Q910 | A6317440 | Transistor, 2SC1815-Y |
| Q911 | A6317440 | Transistor, 2SC1815-Y |
| Q912 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q913 | A6534053 | Transistor, 2SA1015-Y(TE |
| Q914 | A6317440 | Transistor, 2SC1815-Y |
| Q4321 | A6002040 | Transistor, RN1204 |
| Q4420 | 23316816 | IC, LA7860 |
| Q4421 | A6002040 | Transistor, RN1204 |
| Q4423 | A6325419 | Transistor, 2SC2235-O(FA |
| QA01 | 23906172 | IC, TMP87CS38N-3476 |
| QA02 | 23904666 | IC, NM24C08EN |
| QA04 | A6002040 | Transistor, RN1204 |
| QA05 | A6734590 | Transistor, 2SC752(G)TM-Y |
| QB01 | A6317440 | Transistor, 2SC1815-Y |
| QB30 | A6317440 | Transistor, 2SC1815-Y |
| QF01 | 23905948 | IC, SDA5273SC134 |
| QF03 | A6317440 | Transistor, 2SC1815-Y |
| QF04 | A6734590 | Transistor, 2SC752(G)TM-Y |
| QG01 | B0385643 | IC, TA1216AN |
| QQ01 | B0385755 | IC, TA1229N |
| QQ02 | B0383881 | IC, TA8772AN |
| QQ03 | 23314794 | Transistor, 2PC1815Y |
| QQ04 | 23314794 | Transistor, 2PC1815Y |
| QR21 | 23904807 | IC, MC14577CP |
| QR22 | 23905603 | IC, TDA8443B |
| QR23 | A6534053 | Transistor, 2SA1015-Y(TE |
| QR24 | A6534053 | Transistor, 2SA1015-Y(TE |
| QR25 | 23904807 | IC, MC14577CP |
| QS01 | A6342206 | Transistor, 2SC2878-A(TE |
| QS02 | A6342206 | Transistor, 2SC2878-A(TE |
| QS03 | A6342206 | Transistor, 2SC2878-A(TE |
| QS04 | A6342206 | Transistor, 2SC2878-A(TE |
| QS05 | A6342206 | Transistor, 2SC2878-A(TE |
| QS06 | A6342206 | Transistor, 2SC2878-A(TE |
| QS07 | A6010040 | Transistor, RN2004 |
| QS08 | A6342206 | Transistor, 2SC2878-A(TE |
| QS09 | A6342206 | Transistor, 2SC2878-A(TE |
| QV01 | B0385650 | IC, TA1218N |
| QV02 | A6317440 | Transistor, 2SC1815-Y |
| QV03 | A6317440 | Transistor, 2SC1815-Y |
| QV04 | A6317440 | Transistor, 2SC1815-Y |
| QV05 | A6534053 | Transistor, 2SA1015-Y(TE |
| QV06 | A6534053 | Transistor, 2SA1015-Y(TE |
| QV07 | A6342206 | Transistor, 2SC2878-A(TE |
| QV08 | A6317440 | Transistor, 2SC1815-Y |
| QV09 | A6317440 | Transistor, 2SC1815-Y |
| QV10 | A6317440 | Transistor, 2SC1815-Y |
| QV11 | A6534053 | Transistor, 2SA1015-Y(TE |
| QV12 | A6317440 | Transistor, 2SC1815-Y |
| QV14 | A6317440 | Transistor, 2SC1815-Y |
| QV80 | A6534053 | Transistor, 2SA1015-Y(TE |
| QX10 | 70128490 | IC, MM1031XMR |
| QX20 | B0370000 | IC, TA78L05F |
| QX21 | B0488966 | IC, TC74AC74F |
| QX21 | A6030640 | IC, TC7S32F |
| QX30 | 23319052 | IC, MB40978PFQ |
| QX101 | 23314204 | Transistor, 2SC2412K,Q |
| QX103 | 23314345 | Transistor, IMZ1 |
| QX104 | 23314204 | Transistor, 2SC2412K,Q |
| QX105 | A6030670 | IC, TC7S66F |
| QX106 | 23905190 | IC, TLC5510INS |
| QX108 | 23314204 | Transistor, 2SC2412K,Q |
| QX109 | 23314344 | Transistor, IMX1 |
| QX110 | A6030670 | IC, TC7S66F |
| QX111 | 23314204 | Transistor, 2SC2412K,Q |
| QX112 | A6030670 | IC, TC7S66F |
| QX114 | 23905190 | IC, TLC5510INS |
| QX116 | 23314204 | Transistor, 2SC2412K,Q |
| QX117 | 23314344 | Transistor, IMX1 |
| QX118 | A6030670 | IC, TC7S66F |
| QX119 | 23314204 | Transistor, 2SC2412K,Q |
| QX120 | A6030670 | IC, TC7S66F |
| QX201 | A6361770 | Transistor, 2SC3437-Y |
| QX202 | A6030871 | IC, TC7W04F(BRA) |
| QX203 | 23905013 | IC, TLC2932IPW |
| QX205 | 23905013 | IC, TLC2932IPW |
| QX211 | B0508717 | IC, TC190G04AF-0 |
| QX212 | 23904272 | IC, M518221-30ZS |
| QX213 | 23904272 | IC, M518221-30ZS |
| QX302 | 23314204 | Transistor, 2SC2412K,Q |
| QX303 | 23314204 | Transistor, 2SC2412K,Q |
| QX304 | 23314204 | Transistor, 2SC2412K,Q |
| QX305 | 23314204 | Transistor, 2SC2412K,Q |
| QX306 | 23314204 | Transistor, 2SC2412K,Q |
| QX307 | 23314204 | Transistor, 2SC2412K,Q |
| QZ01 | B0410688 | IC, TC9090AN |
| QZ02 | A6317440 | Transistor, 2SC1815-Y |
| QZ03 | A6317440 | Transistor, 2SC1815-Y |
| QZ04 | A6317440 | Transistor, 2SC1815-Y |
| QZ06 | A6317440 | Transistor, 2SC1815-Y |
| D101 | 23316411 | Diode, 1SS184 |
| D201 | 23115599 | Diode, 1N4148 |
| D240 | 23316554 | Diode, 1SS146 |
| D301 | 23118479 | Diode, BYD33J |
| D302 | 23118479 | Diode, BYD33J |
| D303 | 23316794 | Diode, SC570A |
| D306 | 23115599 | Diode, 1N4148 |
| D312 | 23115599 | Diode, 1N4148 |
| D370 | 23316658 | Diode, Zener, MTZJ3.6A |
| D371 | 23115599 | Diode, 1N4148 |
| D372 | 23115599 | Diode, 1N4148 |

| Location No. | Part No. | Description |
|---|---|---|
| D404 | A7680591 | Diode, 5VUZ52 |
| D406 | 23118479 | Diode, BYD33J |
| D418 | 23316749 | Diode, Zener, MTZJ30A |
| D419 | 23316716 | Diode, Zener, MTZJ11B |
| D420 | 23316716 | Diode, Zener, MTZJ11B |
| D421 | 23316680 | Diode, Zener, MTZJ7.5A |
| D422 | 23316726 | Diode, Zener, MTZJ15C |
| D4301 | 23316726 | Diode, Zener, MTZJ15C |
| D431 | 23316678 | Diode, Zener, MTZJ6.8B |
| D432 | 23316678 | Diode, Zener, MTZJ6.8B |
| D436 | 23115599 | Diode, 1N4148 |
| D441 | 23316687 | Diode, Zener, MTZJ9.1B |
| D460 | 23118479 | Diode, BYD33J |
| D461 | 23316582 | Diode, ERC20-06 |
| D463 | 23115599 | Diode, 1N4148 |
| D464 | 23316718 | Diode, Zener, MTZJ12A |
| D466 | 23316672 | Diode, Zener, MTZJ5.6B |
| D467 | 23118479 | Diode, BYD33J |
| D468 | 23316718 | Diode, Zener, MTZJ12A |
| D474 | 23316719 | Diode, Zener, MTZJ12B |
| D490 | 23115599 | Diode, 1N4148 |
| D491 | A7568460 | Diode, TVR-1B |
| D498 | 23316719 | Diode, Zener, MTZJ12B |
| D499 | 23115599 | Diode, 1N4148 |
| D501 | 23115599 | Diode, 1N4148 |
| D502 | 23115599 | Diode, 1N4148 |
| D611 | 23115599 | Diode, 1N4148 |
| D612 | 23115599 | Diode, 1N4148 |
| D613 | 23115599 | Diode, 1N4148 |
| D615 | 23115599 | Diode, 1N4148 |
| D617 | 23115599 | Diode, 1N4148 |
| D618 | 23115599 | Diode, 1N4148 |
| D670 | 23115599 | Diode, 1N4148 |
| D671 | 23115599 | Diode, 1N4148 |
| D674 | 23115599 | Diode, 1N4148 |
| D675 | 23115599 | Diode, 1N4148 |
| D704 | 23115599 | Diode, 1N4148 |
| D705 | 23115599 | Diode, 1N4148 |
| D715 | 23115599 | Diode, 1N4148 |
| D721 | 23115599 | Diode, 1N4148 |
| D801 | 23316795 | Diode, D6SB60L, F05 |
| D803 | 23118479 | Diode, BYD33J |
| D804 | 23316678 | Diode, Zener, MTZJ6.8B |
| D805 | 23115599 | Diode, 1N4148 |
| D806 | 23118479 | Diode, BYD33J |
| D808 | 23118479 | Diode, BYD33J |
| D809 | 23316672 | Diode, Zener, MTZJ5.6B |
| D810 | 23115599 | Diode, 1N4148 |
| D811 | 23115599 | Diode, 1N4148 |
| D812 | 23118451 | Diode, RU-4A |
| D815 | 23316725 | Diode, Zener, MTZJ15B |
| D828 | 23115599 | Diode, 1N4148 |
| D883 | 23316406 | Diode, FML-G16S |
| D885 | 23316184 | Diode, FML-G12S |
| D891 | 23316184 | Diode, FML-G12S |
| D892 | 23316673 | Diode, Zener, MTZJ5,6C |
| D892 | 23316184 | Diode, FML-G12S |
| D893 | 23316672 | Diode, Zener, MTZJ5.6B |
| D896 | 23118479 | Diode, BYD33J |
| D901 | 23115599 | Diode, 1N4148 |
| D903 | 23115599 | Diode, 1N4148 |
| D904 | 23115599 | Diode, 1N4148 |
| D905 | 23115599 | Diode, 1N4148 |
| D906 | 23115599 | Diode, 1N4148 |

| Location No. | Part No. | Description |
|---|---|---|
| D907 | 23115599 | Diode, 1N4148 |
| D908 | 23115599 | Diode, 1N4148 |
| D909 | 23115599 | Diode, 1N4148 |
| D910 | 23115599 | Diode, 1N4148 |
| D911 | 23118479 | Diode, BYD33J |
| DB01 | 23358505 | LED, SLR56VC196F |
| DB02 | 23358503 | LED, SCL003MC3FX |
| DB30 | 23115599 | Diode, 1N4148 |
| DF01 | 23316654 | Diode, Zener, MTZJ3.0A |
| DR01 | 23316719 | Diode, Zener, MTZJ12B |
| DR02 | 23316719 | Diode, Zener, MTZJ12B |
| DR03 | 23316719 | Diode, Zener, MTZJ12B |
| DR04 | 23316719 | Diode, Zener, MTZJ12B |
| DV01 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV02 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV03 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV04 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV05 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV06 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV07 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV09 | 23115599 | Diode, 1N4148 |
| DV10 | 23115599 | Diode, 1N4148 |
| DV11 | 23115599 | Diode, 1N4148 |
| DV12 | 23316687 | Diode, Zener, MTZJ9.1B |
| DV80 | 23115599 | Diode, 1N4148 |
| DZ01 | 23316690 | Diode, Zener, MTZJ10B |

## MISCELLANEOUS

| | | |
|---|---|---|
| B202 | 23470427 | Frame, Terminal |
| ⚠F470 | 23144502 | Fuse, 1.0A |
| F470A | 23165433 | Holder, Fuse |
| F470B | 23165433 | Holder, Fuse |
| ⚠F801 | 23144507 | Fuse, 3.15A |
| F801A | 23165433 | Holder, Fuse |
| ⚠F802 | 23144506 | Fuse, 2.5A 250V |
| F802A | 23165433 | Holder, Fuse |
| G224 | 24366271 | CF, 270 ohm |
| G311 | 24366332 | CF, 3300 ohm |
| G333 | 23238702 | Coil, Peaking, TRF4101AJ |
| G401 | 23103859 | Ferrite Choke, TEM2011 |
| G402 | 23103859 | Ferrite Choke, TEM2011 |
| G403 | 23103859 | Ferrite Choke, TEM2011 |
| G404 | 23103859 | Ferrite Choke, TEM2011 |
| G430 | A7568460 | Diode, TVR-1B |
| G510 | 23289470 | Coil, Peaking, TRF4470AF |
| G516 | 24366101 | CF, 100 ohm |
| G517 | 24366101 | CF, 100 ohm |
| G601 | 23238714 | Coil, Peaking, TRF4100AJ |
| G602 | 23238714 | Coil, Peaking, TRF4100AJ |
| G812 | 23103859 | Ferrite Choke, TEM2011 |
| GV05 | 23289109 | Coil, Peaking, TRF41R0AF |
| GV13 | 24366681 | CF, 680 ohm |
| GV80 | 24366681 | CF, 680 ohm |
| GV81 | 24366681 | CF, 680 ohm |
| H002 | 23148250 | Module, MVGS44A, IGR BG/DK (2876DD) |
| H002 | 23148276 | Module, MVGS49 (2876DF) |
| KB01 | 23904946 | Remote Sensor, RPM-676CBR-S |
| P661 | 23363607 | Headphone Jack, 3.5mm |
| ⚠P801 | 23372014 | Power Cord |
| PV03 | 23365546 | Jack, 2C-2P |
| PV04 | 23363252 | Pin Jack, Yellow |
| PV05 | 23365508 | Jack, Phono |

| Location No. | Part No. | Description |
|---|---|---|
| ⚠S801 | 23344395 | Switch, Power |
| SA01 | 23145430 | Switch, Push, 1C1P |
| SA02 | 23145430 | Switch, Push, 1C1P |
| SA03 | 23145430 | Switch, Push, 1C1P |
| SA04 | 23145430 | Switch, Push, 1C1P |
| SA06 | 23145430 | Switch, Push, 1C1P |
| ⚠V901A | 23902891 | Socket, CRT, 10P |
| W661 | 23351116 | Speaker, SPK-1382, 60x120mm, 8 ohm |
| W662 | 23351116 | Speaker, SPK-1382, 60x120mm, 8 ohm |
| W665 | 23351080 | Speaker, SPK-1352, 100x100mm, 6 ohm |
| X401 | 23153721 | Ceramic Resonator, 503kHz, TCR1023 |
| X501 | 23153961 | Crystal, 3.58MHz |
| X503 | 23153979 | Crystal, 4.43MHz |
| XA01 | 23153325 | Ceramic Resonator, 8.00M, TCR1056 |
| XF01 | 23153421 | Crystal, 20.48MHz |
| XQ01 | 23153969 | Crystal, 4MHz |
| Z201 | 23107519 | Ceramic Video Trap, 4.43MHz, TCF1066 |
| Z420 | 23144539 | Protector, PRF20005491, 125V, 2A |
| ⚠Z430 | 23144536 | Protector, PRF10005491, 125V, 1A |
| Z801 | 23904998 | IC, HIC1016 |
| ⚠Z889 | 23144543 | Protector, PRF50005491, 125V, 5A |
| ⚠Z890 | 23144543 | Protector, PRF50005491, 125V, 5A |
| ⚠Z891 | 23144543 | Protector, PRF50005491, 125V, 5A |
| ⚠Z896 | 23144539 | Protector, PRF20005491, 125V, 2A |
| ⚠Z897 | 23144450 | Protector, PRF2000, 125V, 2A |
| ZX101 | 23103823 | Filter, TEM2027D |
| ZX102 | 23103823 | Filter, TEM2027D |
| ZX103 | 23103823 | Filter, TEM2027D |
| ZX104 | 23103823 | Filter, TEM2027D |
| ZX201 | 23103823 | Filter, TEM2027D |
| ZX202 | 23103823 | Filter, TEM2027D |
| ZX203 | 23103823 | Filter, TEM2027D |
| ZX801 | 23303181 | Filter, TEM1012N |
| ZX802 | 23303181 | Filter, TEM1012N |

## PC BOARD ASSEMBLIES

| Location No. | Part No. | Description |
|---|---|---|
| *U902A | 23706594 | Signal Board, PB7208N-1 (2876DD) |
| *U902A | 23706780 | Signal Board, PB7208C-1 (2876DF) |
| *U902B | 23706597 | A-PRO Board, PB7208N-2 (2876DD) |
| *U902B | 23706783 | A-PRO Board, PB7208C-2 (2876DF) |
| *U903A | 23706598 | Power Board, PB7209Z-1 |
| *U903B | 23706599 | Def Board, PB7209Z-2 |
| *U904 | 23706629 | Back Terminal Board, PB7211Y |
| *U905 | 23706505 | CRT Drive Board, PB7212X |
| *U906A | 23706600 | SECAM Board, PB7213X-1 |
| *U906B | 23706601 | Comb Board, PB7213X-2 |
| *U906C | 23706508 | YUV SW Board, PB7213X-3 |
| *U906D | 23706507 | E/W Board, PB7213X-4 |
| *U907 | 23706855 | Text Board, PB6513Y |
| *U908A | 23706825 | UP Conver Board, PB7366X |

## PICTURE TUBE

| Location No. | Part No. | Description |
|---|---|---|
| ⚠V901 | 23312716 | Picture Tube, A66EAK552X54 |

## TUNER

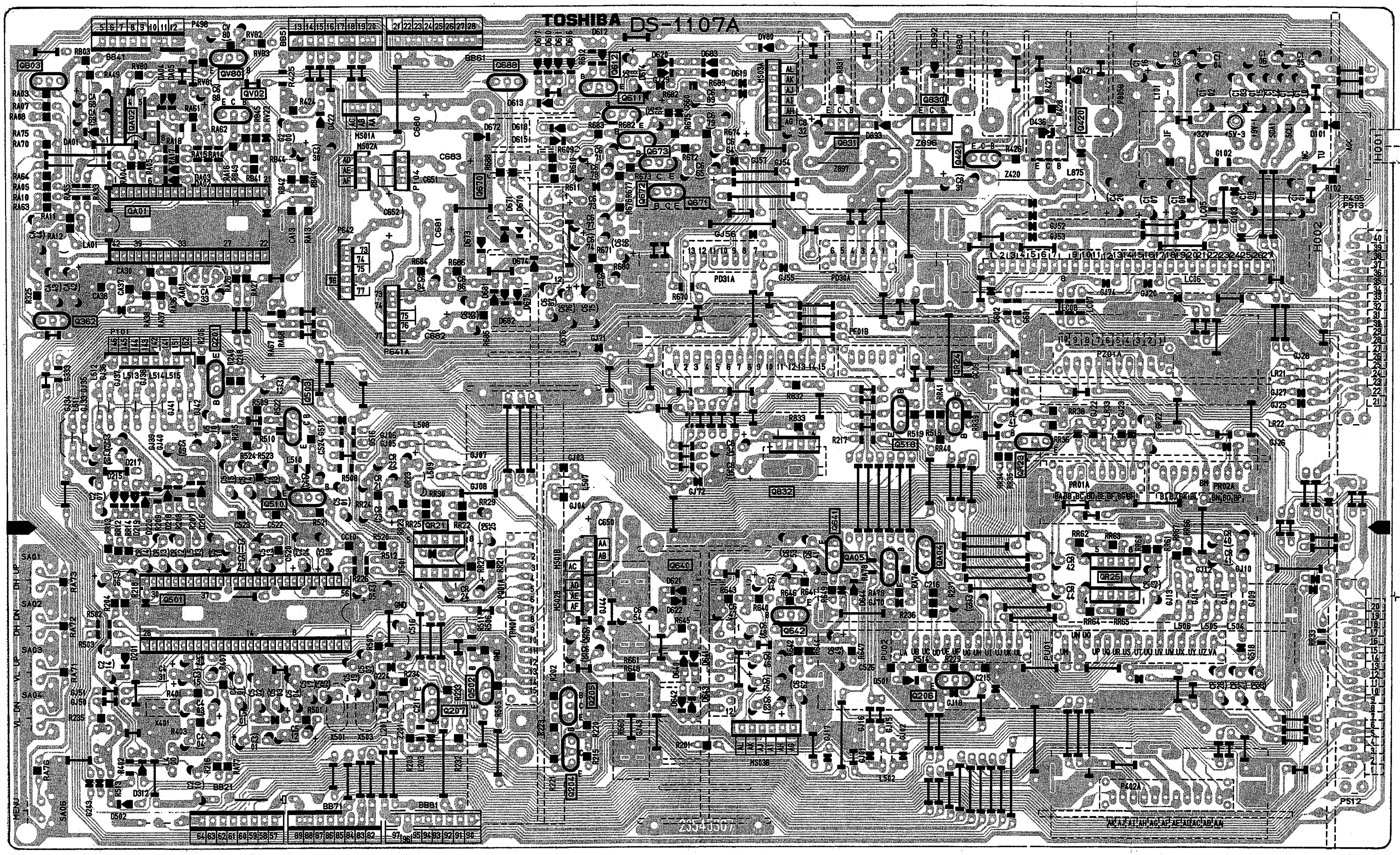
| Location No. | Part No. | Description |
|---|---|---|
| H001 | 23321227 | Tuner, EGA12LX1 |

## ACCESSORIES

| Location No. | Part No. | Description |
|---|---|---|
| K902 | 23306175 | Remote Hand Unit, CT-9867 |
| Y102 | 23563049 | Owner's Manual, French, 2876DF |
| Y103 | 23563015 | Owner's Manual, German, 2876DD |
| Y104 | 23563016 | Owner's Manual, Italian, 2876DD |

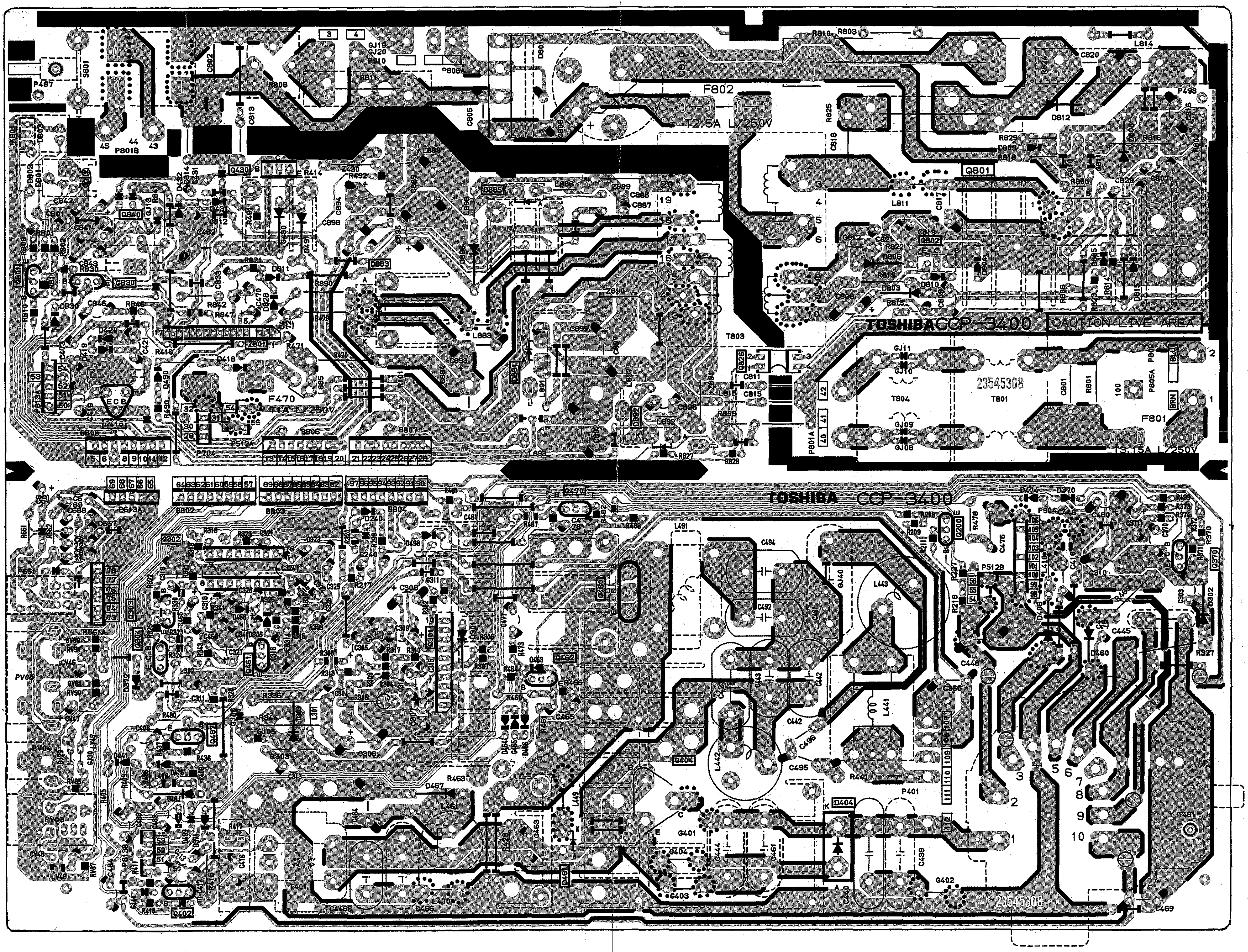
# SIGNAL BOARD PB7208N-1/PB7208C-1

BOTTOM (FOIL) SIDE


TOSHIBA
DS-1107A
2354-6307

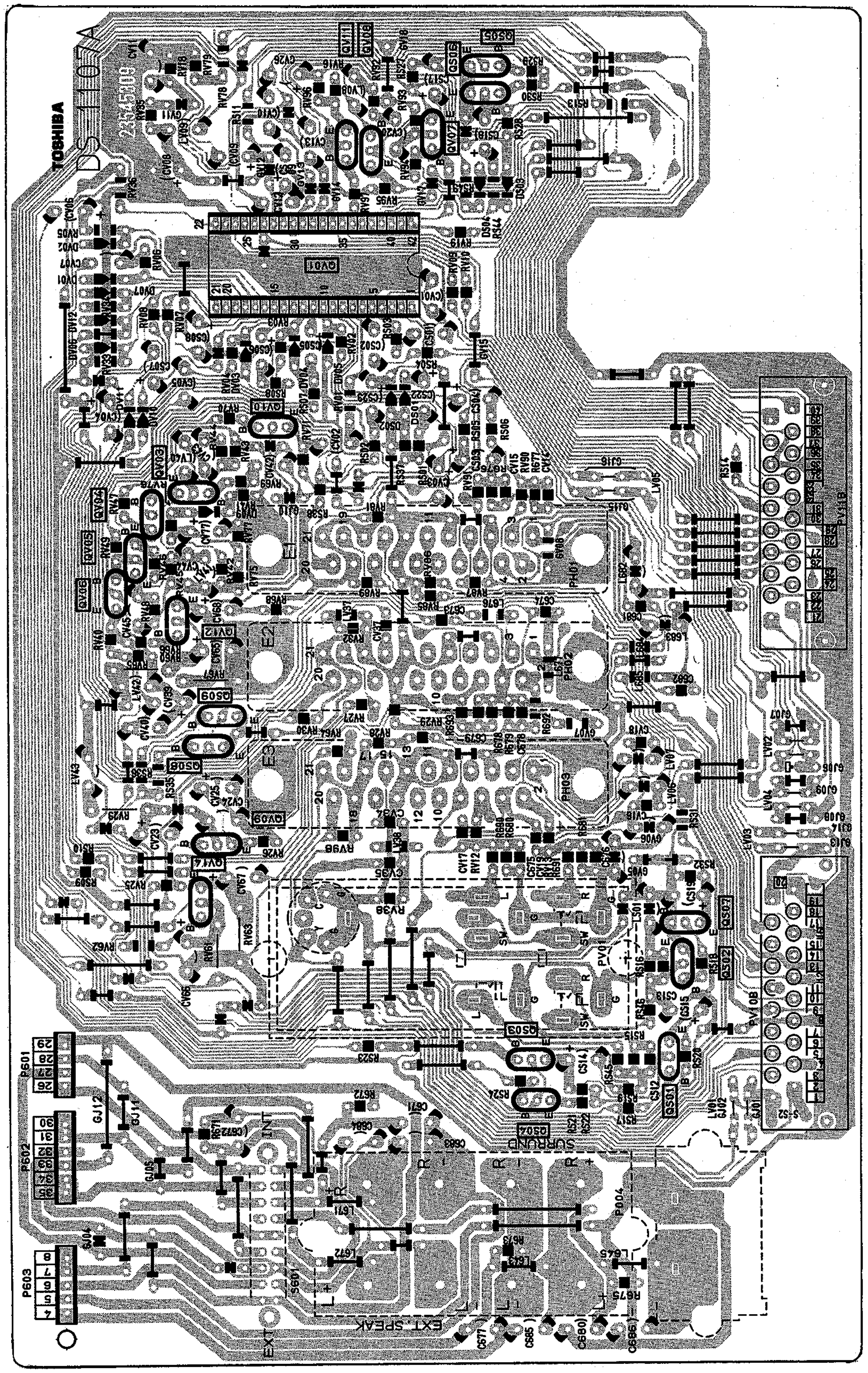
# POWER BOARD PB7209Z-1/DEF BOARD PB7209Z-2

BOTTOM (FOIL) SIDE


TOSHIBA CCP-3400
CAUTION LIVE AREA
F802
T2.5A L/250V
F470
T1A L/250V
F801
T3.15A L/250V
23545308
T803
T804
T801
Q801
P801B
P802
P805A
P801A
GJ11
GJ10
GJ09
GJ08
BRN
BLU
TOSHIBA CCP-3400
L443
L441
L442
P401
T461
T401
G401
G402
G403
G404
D494
1
2
3
4
5
6
7
8
9
10
23545308

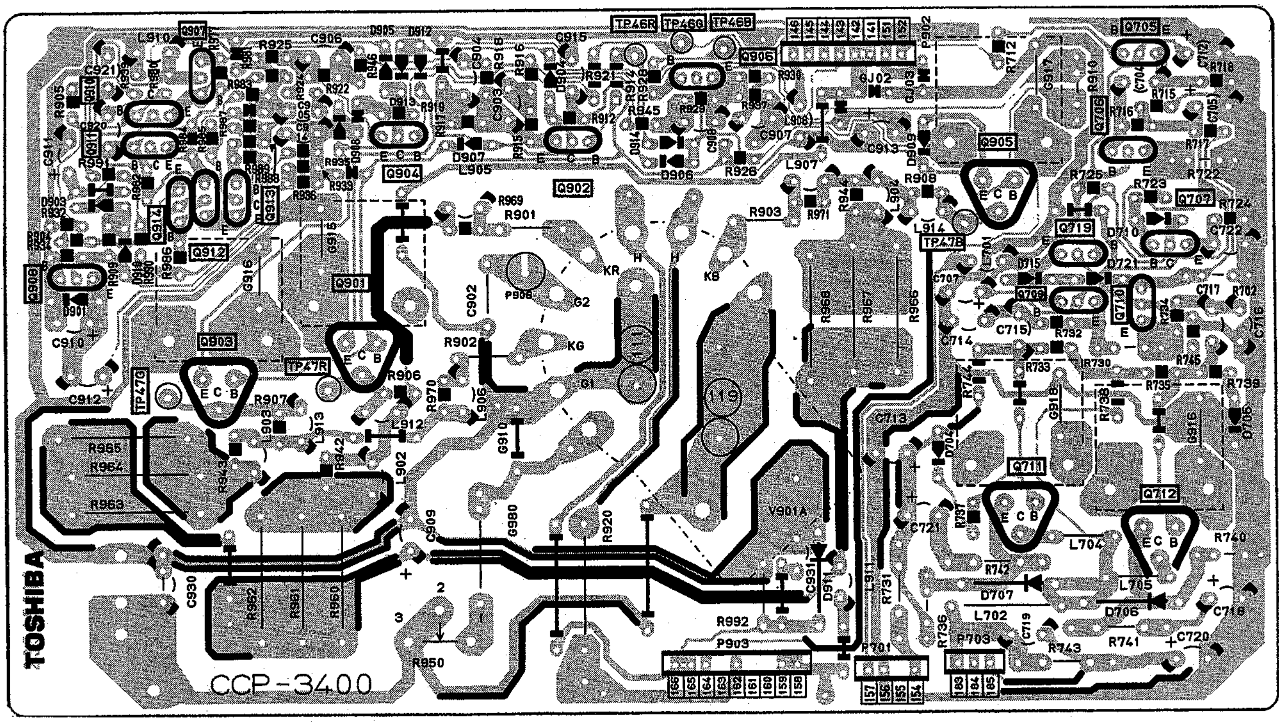
# BACK TERMINAL/AV BOARD PB7211Y

BOTTOM (FOIL) SIDE



# CRT DRIVE/DSM BOARD PB7212X

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
Q901
Q902
Q903
Q904
Q905
Q906
Q907
Q908
Q912
Q913
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Q705
Q706
Q707
Q709
Q710
Q711
Q712
Q719
TP46R
TP46G
TP46B
TP47G
TP47R
TP47B
P903
P701
P703
V901A
KR
KG
KB
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G2
R965
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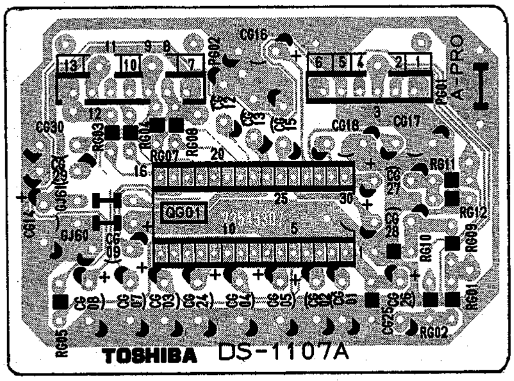
R960
R968
R967
R966
R920
R950
R992
C930
C909
L902
L704
L705
L702
D707
D706
R740
R741
C720
C716
R743
C721
C713
C714
C715
C707
C907
C910
C912
C913
R901
R902
R903
R906
R907
R908
R926
R969
R970
R971
L905
L907
L912
L914
D906
D907
D901
D903

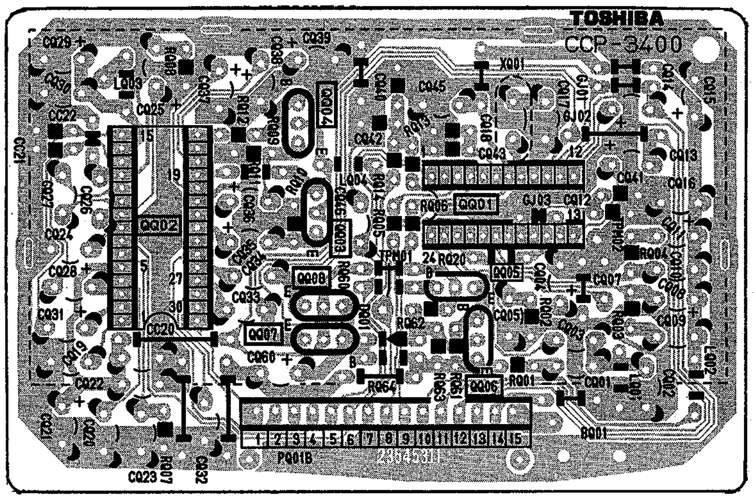
# A-PRO BOARD PB7208N-2/PB7208C-2

BOTTOM (FOIL) SIDE


TOSHIBA
DS-1107A
A-PRO
QG01
PG01
PG02
CG16
CG17
CG18
CG30
CG14
GJ60
RG01
RG02
RG05
RG07
RG08
RG09
RG10
RG11
RG12
13
11
10
9
8
7
6
5
4
2
1
12
3
20
16
25
30
10
5

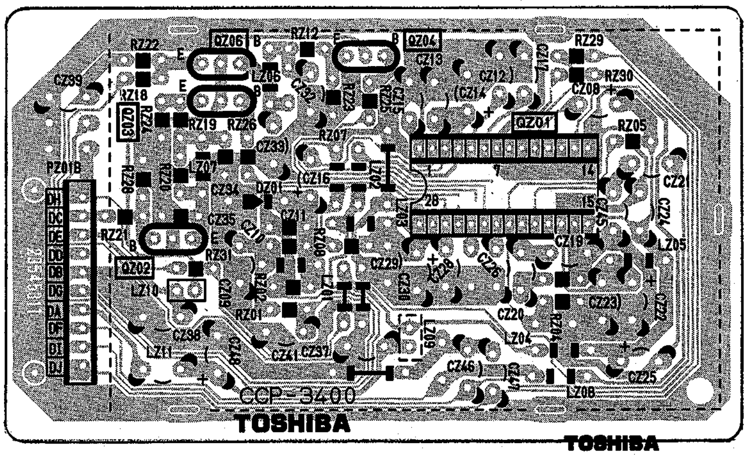
# SECAM BOARD PB7213X-1

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
QQ02
QQ04
QQ01
QQ03
QQ05
QQ06
QQ07
QQ08
XQ01
PQ01B
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

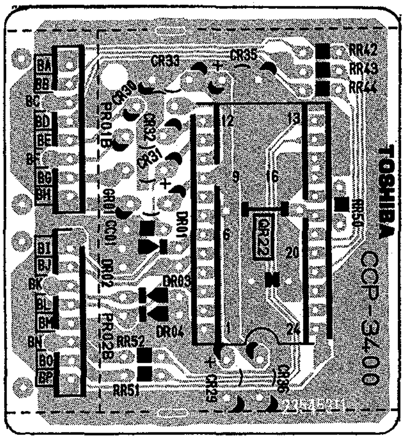
# COMB BOARD PB7213X-2

BOTTOM (FOIL) SIDE


QZ06
QZ04
QZ03
QZ01
QZ02
PZ01B
DH
DC
DE
DD
DB
DG
DA
DF
DI
DJ
CCP-3400
TOSHIBA

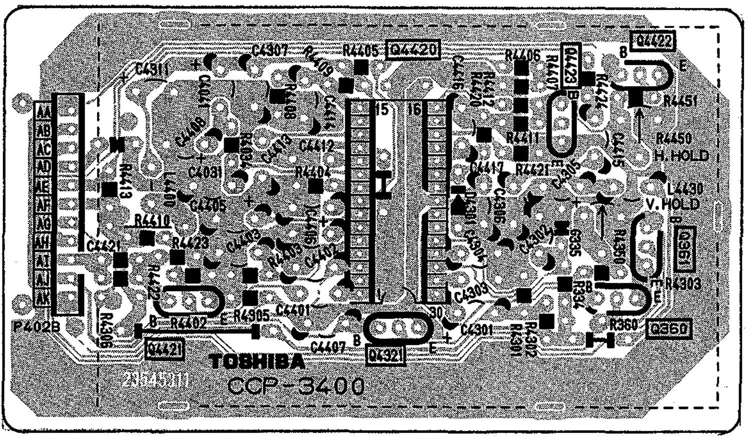
## YUV S/W BOARD PB7213X-3

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
RR42
RR43
RR44
CR33
CR35
RR50
QR22
DR01
DR03
DR04
RR52
RR51
CR29
CR36

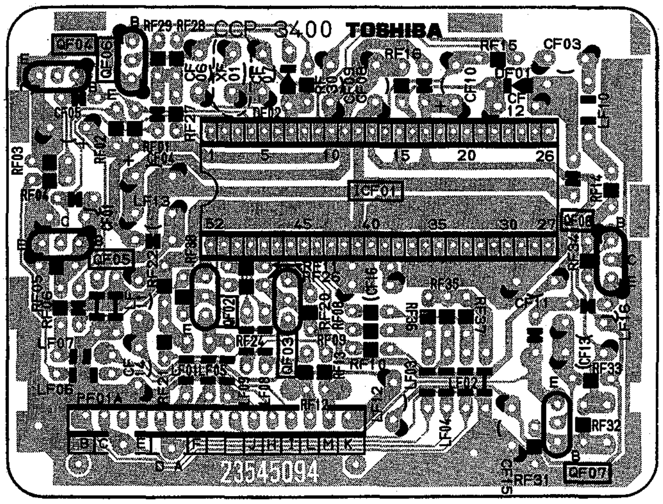
## PAL/100Hz BOARD PB7213X-4

BOTTOM (FOIL) SIDE


TOSHIBA
CCP-3400
23545211
P402B
Q4420
Q4422
Q4423
Q4421
Q4321
Q361
Q360
R4451
R4450
H.HOLD
L4430
V.HOLD
R4303
R360

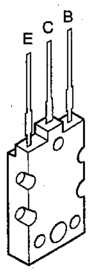
## TEXT BOARD PB6513Y

BOTTOM (FOIL) SIDE

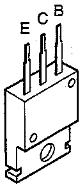

CCP-3400
TOSHIBA
23545094
QF04
QF06
QF05
QF07
ICF01
RF15
CF03
RF16
RF31
RF32
RF33
CF15

# TERMINAL VIEW OF TRANSISTORS

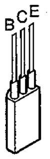
① 2SD2253



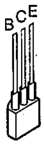
② 2SC3852
2SD1763A
2SC1569
2SC4544
2SA1788
2SA1306
2SA1186A



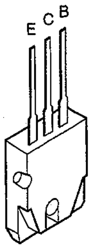
③ 2SC752GTM
2SC2482
2SC2655
2SC4721P



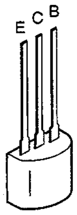
④ 2SC752
2SA562TM
2SA1015
2SC1815
2SC2878
2SC1740S
2SC2120
2SA9335



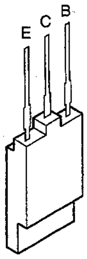
⑤ 2SA1788



⑥ RN2203
RN2201
RN2004
RN1203
RN1204
RN2204
RN1205



⑦ 2SD1554



## MEMO

MEMO

## MEMO

## SPECIFICATIONS (2876DD)

**Input Power Rating:** 150 Watts (Normal), AC 220 ~ 240 Volts, 50 Hz

**Aerial Input Impedance:** 75 ohm unbalanced type for VHF, UHF and CATV

**Receiving Channels:**

| System | | VHF | UHF | CATV | |
|---|---|---|---|---|---|
| PAL B/G | CCIR | 2 ~ 12 | 21 ~ 69 | S1 ~ S41 | X ~ Z + 2, |
| SECAM B/G | CCIR | 2 ~ 12 | 21 ~ 69 | S1 ~ S41 | X ~ Z + 2, |
| PAL D/K | CHINA | 1 ~ 12 | 13 ~ 57 | Z-1 ~ Z-35 | |
| SECAM D/K | OIRT | 1 ~ 12 | 21 ~ 69 | X-1 ~ X-19 | |

PAL, SECAM 50 Hz/60 Hz (For Video Disk playback)
4.43 NTSC (For VCR playback), 3.58 NTSC (For VCR playback)

**Intermediate Frequencies:**
Picture I-F carrier frequency .................. 38.9 MHz (L VL)
Sound I-F carrier frequency
L System .............................................32.4 MHz (L VH, U)/40.97 MHz (L VL)
B/G System ........................................33.4 MHz
D/K System ........................................32.4 MHz

**Picture Tube:** 28 inches, A66EAK552X54, 660 mm (measured on diagonal of viewable picture area)
110° deflection

**Sound Output:** 10 W + 10W (at 10% Distortion, Main)
13W (at 10% Distortion, Woofer)

**Speakers:** 60 mm x 120 mm oval, 2 pcs (Main)
100 mm, round, 1 pc (Woofer)

**Aux. Terminals:** 21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm).

**Cabinet:** Table type

**Dimensions:**
Height ........................................................ 569 mm
Width ......................................................... 760 mm
Depth ......................................................... 480 mm

**Mass:** 36.3 kg

Specifications are subject to change without notice.

## SPECIFICATIONS (2876DF)

**Input Power Rating:** 150 Watts (Normal), , AC 220 ~ 240 Volts, 50 Hz

**Aerial Input Impedance:** 75 ohm unbalanced type for VHF, UHF and CATV

**Receiving Channels:**

| System | | VHF | UHF | CATV | |
|---|---|---|---|---|---|
| PAL B/G | CCIR | 2 ~ 12 | 21 ~ 69 | S1 ~ S41 | X ~ Z + 2, |
| SECAM B/G | CCIR | 2 ~ 12 | 21 ~ 69 | S1 ~ S41 | X ~ Z + 2, |
| PAL D/K | CHINA | 1 ~ 12 | 13 ~ 57 | Z-1 ~ Z-35 | |
| SECAM D/K | OIRT | 1 ~ 12 | 21 ~ 69 | X-1 ~ X-19 | |
| PAL I | UK | – | 21 ~ 69 | – | |
| SECAM L | FRANCE /CCIR | FB ~ F6 | 21 ~ 69 | S1 ~ S41 | X ~ Z + 2, |

PAL, SECAM 50 Hz/60 Hz (For VCR playback)
4.43 NTSC (For VCR playback), 3.58 NTSC (For VCR playback)

**Intermediate Frequencies:**
Picture I-F carrier frequency .................. 38.9/33.95 MHz (L VL)
Sound I-F carrier frequency
L System .............................................32.4 MHz (L VH, U)/40.97 MHz (L VL)
B/G System ........................................32.9 MHz
I System ...............................................33.4 MHz
D/K System ........................................40.45 MHz

**Picture Tube:** 28 inches, A66EAK552X54, 660 mm (measured on diagonal of viewable picture area)
110° deflection

**Sound Output:** 10 W + 10 W (at 10% Distortion, Main)
13 W (at 10% Distortion, Woofer)

**Speakers:** 60 mm x 120 mm oval, 2 pcs (Main)
100 mm, round, 1 pc (Woofer)

**Aux. Terminals:** 21 pin socket (FULL), 21 pin socket (S-VIDEO/AV), MONITOR OUTPUT, STEREO HEADPHONE JACK (3.5mm).

**Cabinet:** Table type

**Dimensions:**
Height ........................................................ 569 mm
Width ......................................................... 760 mm
Depth ......................................................... 480 mm

**Mass:** 36.3 kg

Specifications are subject to change without notice.

# SCHEMATIC DIAGRAM MODEL : 2876DD / 2876DF (1/4)

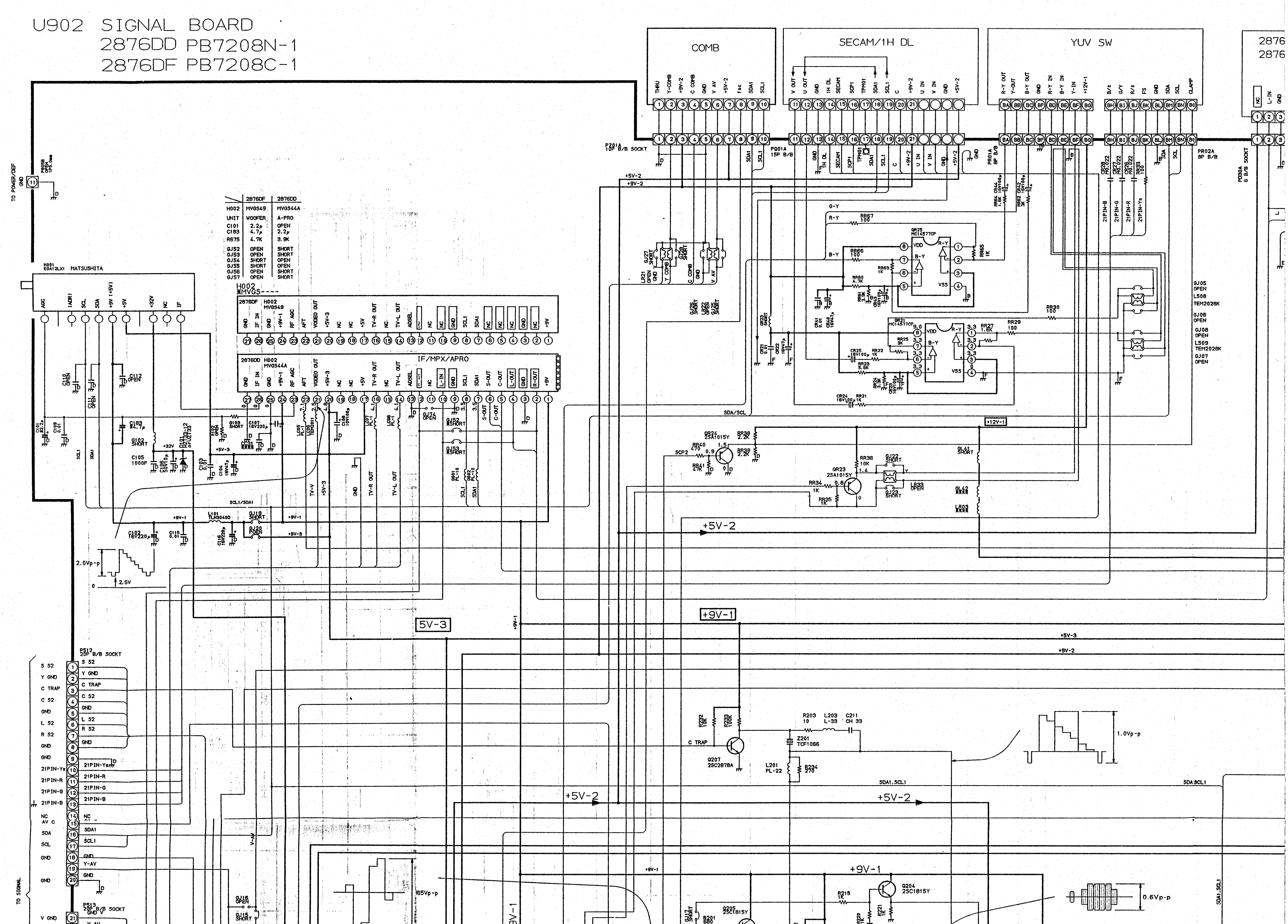
**CAUTION**: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE on page 3. Do not degrade the safety of the receiver through improper servicing.

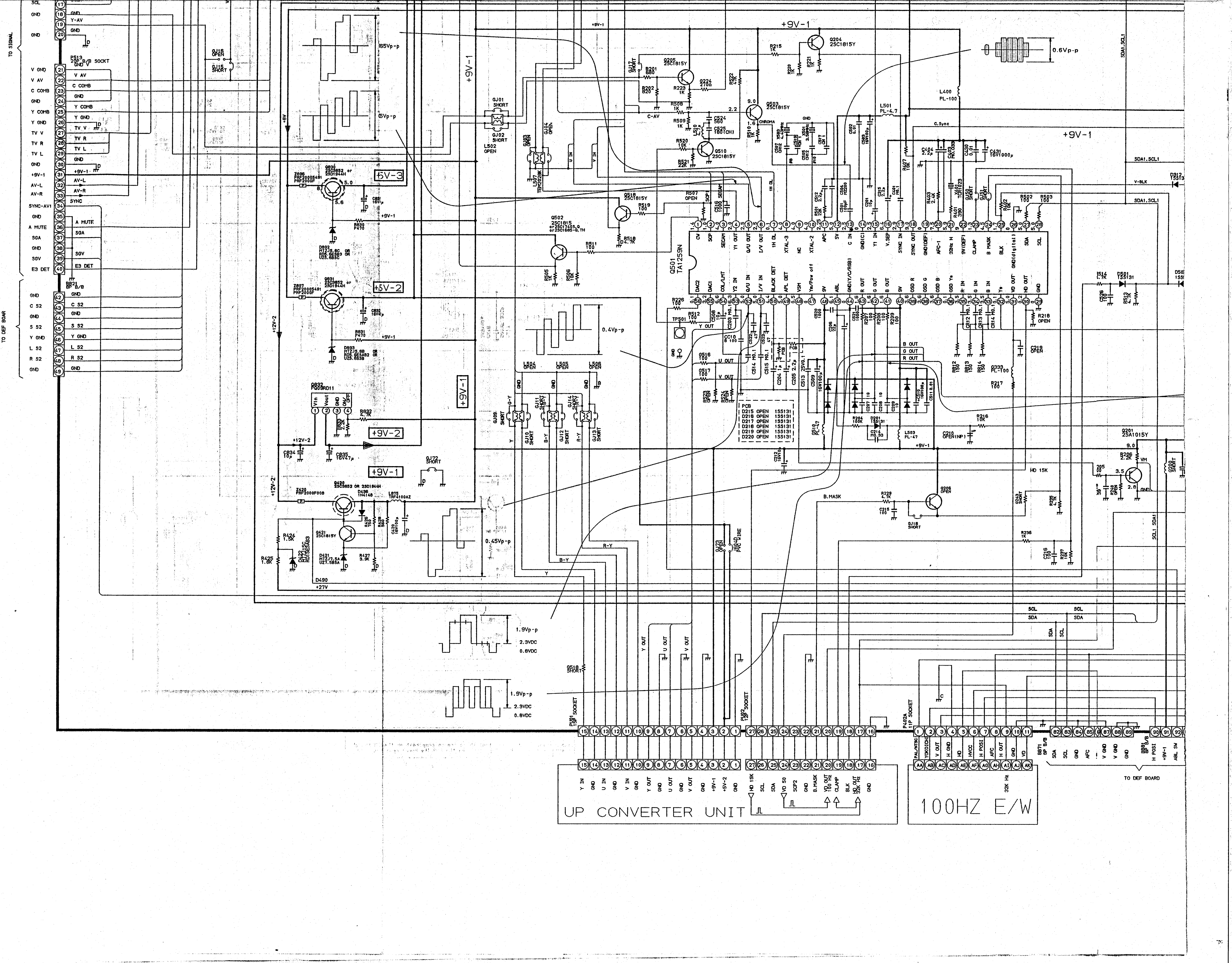
### OBSERVATION OF VOLTAGES AND WAVEFORMS

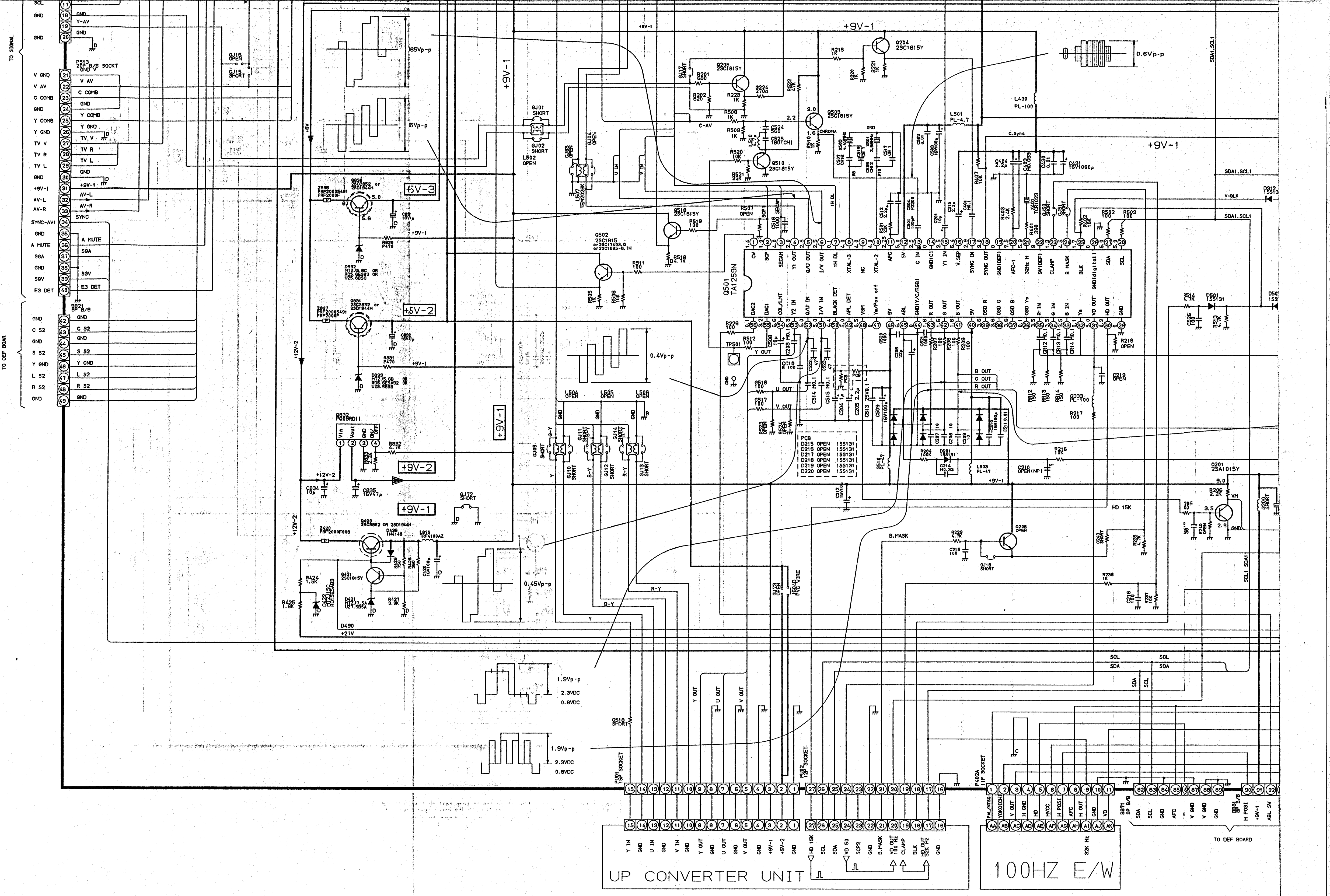
1. Voltages read with VTVM from point shown to chassis ground, line voltage 220 volts, colour bar signal. Voltages reading may vary ±20%.
2. All waveforms are taken using a wide band oscilloscope and a low capacity probe.
3. Waveforms are taken using a standard colour bar signal.
4. Make sure that CONTRAST and COLOUR controls are in mid position and BRIGHTNESS control is almost in maximum position. Set other controls for best picture.

### NOTES:

1. D.C. resistance value of a principal gram. These are measured for separa
2. The circuits are subject to change wi
3. ⬘ : Solder links.


U902 SIGNAL BOARD
2876DD PB7208N-1
2876DF PB7208C-1
COMB
SECAM/1H DL
YUV SW
H002 ※MVGS----
IF/MPX/APRO
H001 EDA12LXI MATSUSHITA
5V-3
+9V-1
+5V-2
2.0Vp-p
2.5V
1.0Vp-p
65Vp-p
0.6Vp-p
C TRAP
Q207 2SC2878A
Q204 2SC1815Y
P512 20P B/B SOCKT
P513 20P B/B SOCKT
TO SIGNAL
TO POWER/DEF


TO SIGNAL
TO DEF BOAR
SCL
GND
Y-AV
V GND
V AV
C COMB
Y COMB
Y GND
TV V
TV R
TV L
+9V-1
AV-L
AV-R
SYNC-AV1
A MUTE
SGA
SGV
E3 DET
C S2
S S2
L S2
R S2
PS13 20P B/B SOCKT
BB21 8P B/B
65Vp-p
65Vp-p
+9V-1
+5V-3
+5V-2
+9V-2
+12V-2
+27V
PQ09RD11
0.45Vp-p
0.4Vp-p
1.9Vp-p
2.3VDC
0.8VDC
Q501 TA1259N
Q502 2SC1815
Q204 2SC1815Y
Q510 2SC1815Y
Q519 2SC1815Y
Q421 2SC1815Y
Q201 2SA1015Y
Q206 OPEN
L400 PL-100
L501 PL-4.7
L503 PL-47
0.6Vp-p
C.Sync
SDA1,SCL1
V-BLK
B OUT
G OUT
R OUT
B.MASK
HD 15K
PCB
D215 OPEN 1SS131
D216 OPEN 1SS131
D217 OPEN 1SS131
D218 OPEN 1SS131
D219 OPEN 1SS131
D220 OPEN 1SS131
Y OUT
U OUT
V OUT
SCL
SDA
PW01 15P SOCKET
PW02 SOCKET
P402A 11P SOCKET
UP CONVERTER UNIT
Y IN
U IN
V IN
+5V-2
HD 15K
VD 50
SCP2
B.MASK
VD OUT 100 Hz
CLAMP
BLK
HD OUT 32K Hz
100HZ E/W
PAL/NTSC
YOKO(CH)
H GND
HD
HVCC
H POSI
AFC
H OUT
VD
32K Hz
TO DEF BOARD
ABL SW



TO SIGNAL
TO DEF BOAR
SCL
GND
Y-AV
GND
P513 20P B/B SOCKT
V GND
V AV
C COMB
GND
Y COMB
Y GND
TV V
TV R
TV L
GND
+9V-1
AV-L
AV-R
SYNC-AVI
GND
A MUTE
SGA
GND
SGV
E3 DET
B821 8P B/B
C S2
S S2
Y GND
L S2
R S2
65Vp-p
65Vp-p
+9V-1
+5V-3
+5V-2
+9V-2
+9V-1
+12V-2
+27V
D490
GJ01 SHORT
GJ02 SHORT
L502 OPEN
Q502 2SC1815
Q224 2SC1815Y
Q205 2SC1815Y
Q503 2SC1815Y
Q510 2SC1815Y
Q519 2SC1815Y
0.6Vp-p
L400 PL-100
L501 PL-4.7
C.Sync
SDA1.SCL1
V-BLK
Q501 TA1259N
0.4Vp-p
0.45Vp-p
1.9Vp-p
2.3VDC
0.8VDC
1.9Vp-p
2.3VDC
0.8VDC
PCB
D215 OPEN 1SS131
D216 OPEN 1SS131
D217 OPEN 1SS131
D218 OPEN 1SS131
D219 OPEN 1SS131
D220 OPEN 1SS131
Q201 2SA1015Y
Q206 OPEN
HD 15K
B.MASK
B OUT
G OUT
R OUT
Y OUT
U OUT
V OUT
R-Y
B-Y
Y
SCL
SDA
P402A 11P SOCKET
B881 8P B/B
UP CONVERTER UNIT
Y IN
GND
U IN
GND
V IN
GND
Y OUT
GND
U OUT
GND
V OUT
+9V-1
+5V-2
HD 15K
SCL
SDA
VD 50
SCP2
GND
B.MASK
VD OUT 100 Hz
CLAMP
BLK
HD OUT 32K Hz
GND
100HZ E/W
PAL/NTSC
YOKO(CH)
V OUT
H GND
HD
HVCC
H POSI
APC
H OUT
GND
VD
32K Hz
SDA
SCL
GND
AFC
V GND
V GND
GND
H POSI
+9V-1
ABL SW
TO DEF BOARD

## OTES:

. D.C. resistance value of a principal transformer is shown in this schematic diagram. These are measured for separated from the circuit.

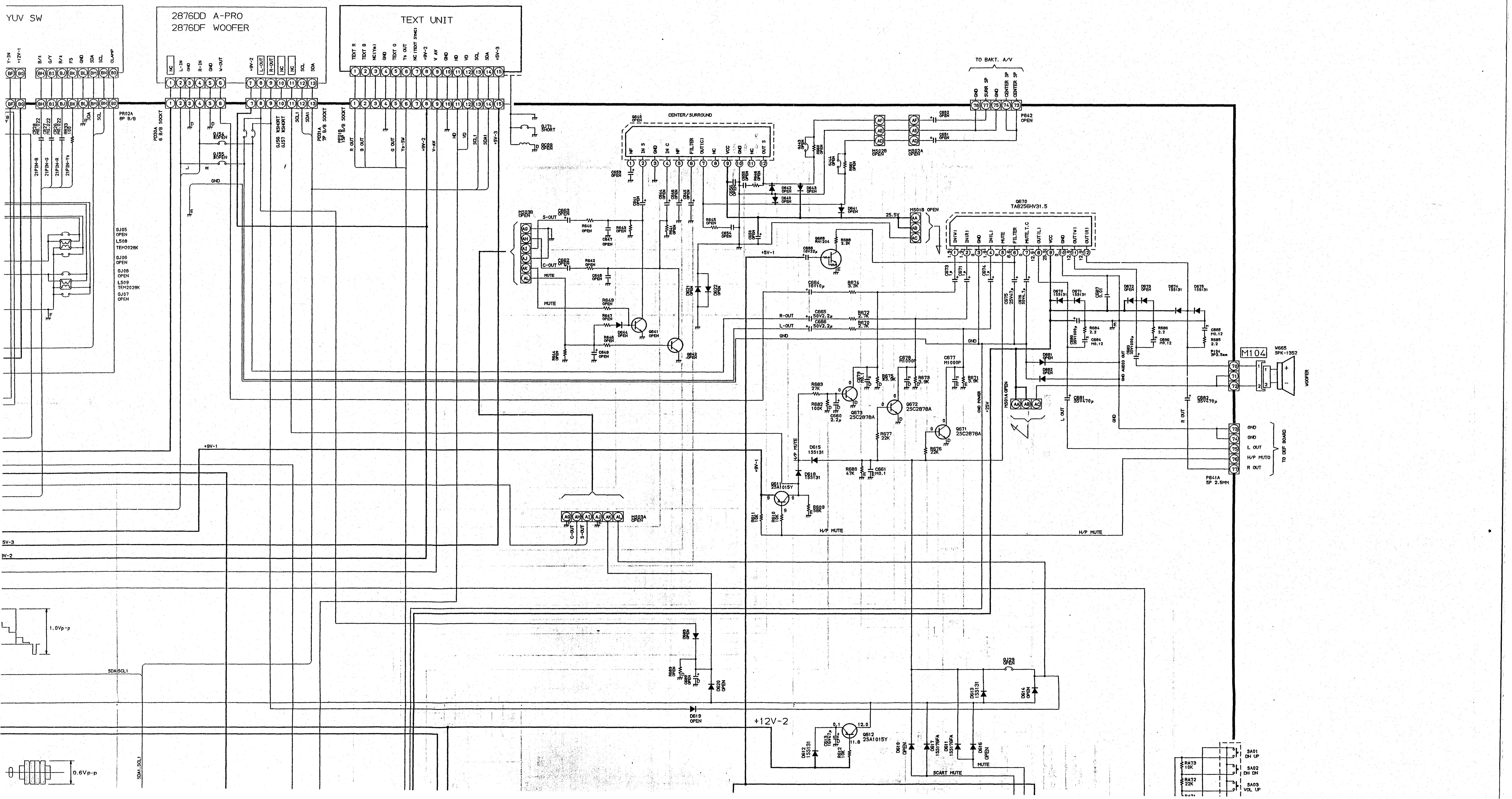
. The circuits are subject to change without notice.

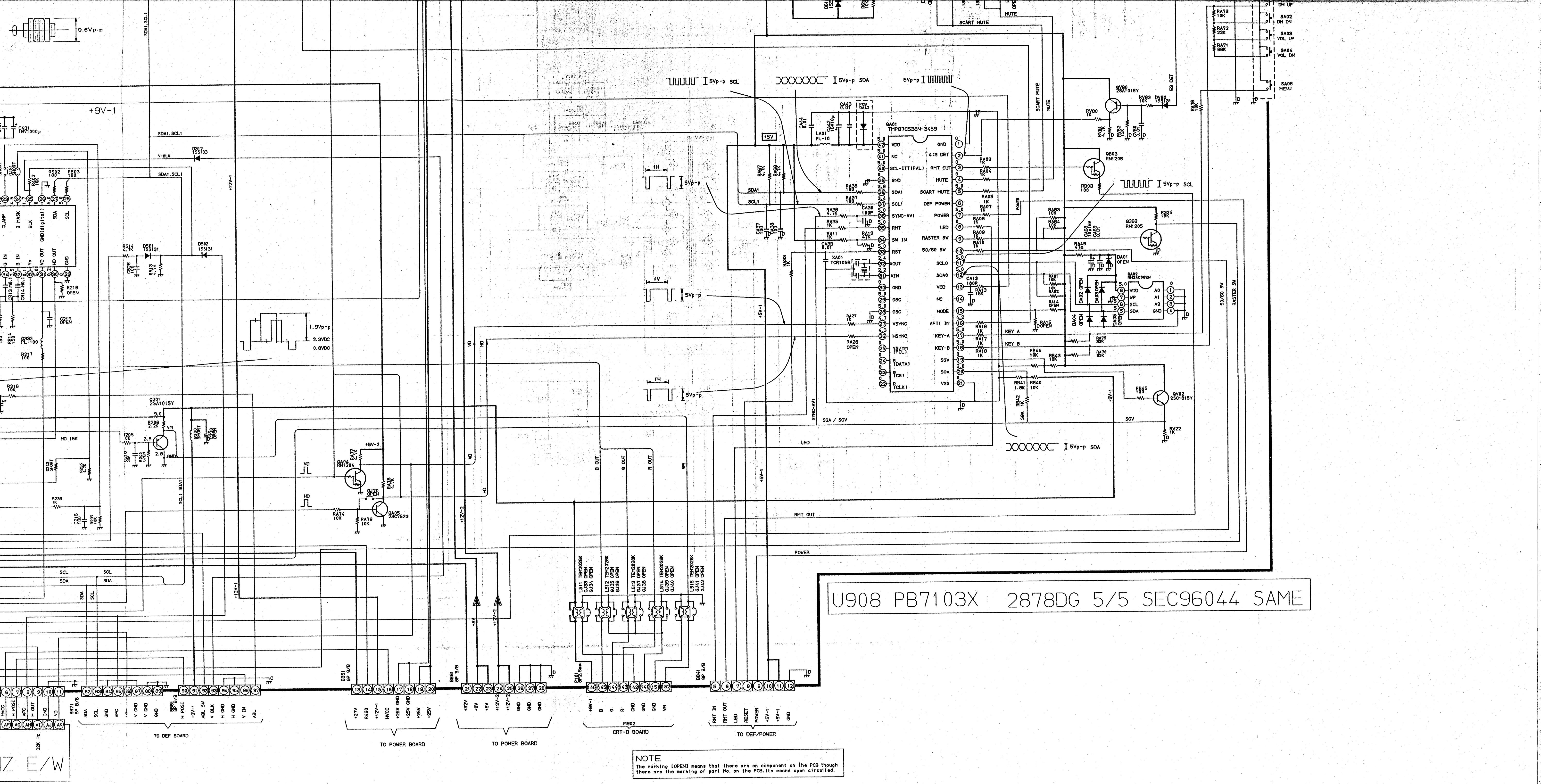
. ⊖ : Solder links.

## EXPRESSION

### VALUE OF RESISTOR, CAPACITOR and INDUCTOR

1. Resistance is shown in ohm, k=1,000, M=1,000,000
2. Unless other wise noted in schematic, all capacitor values less than 1 are expressed in $\mu$F and the values more than 1 in pF.
3. Unless otherwise noted in schematic, all inductor values more than 1 are expressed in $\mu$H, and the values less than 1 in H.


YUV SW
2876DD A-PRO
2876DF WOOFER
TEXT UNIT
TO BAKT. A/V
CENTER/SURROUND
Q670
TA8256HV31.5
M104
W665
SPK-1352
WOOFER
GND
GND
L OUT
H/P MUTO
R OUT
TO DEF BOARD
P641A
SP 2.5MM
P642
OPEN
R-OUT
L-OUT
GND
S-OUT
C-OUT
MUTE
+5V-1
+9V-1
25.5V
H/P MUTE
SCART MUTE
+12V-2
Q672
2SC2878A
Q673
2SC2878A
Q671
2SC2878A
Q611
2SA1015Y
Q612
2SA1015Y
1.0Vp-p
0.6Vp-p
SDA/SCL1
5V-3
9V-2
SA01
DH UP
SA02
DH DN
SA03
VOL UP
RA73
10K
RA72
22K

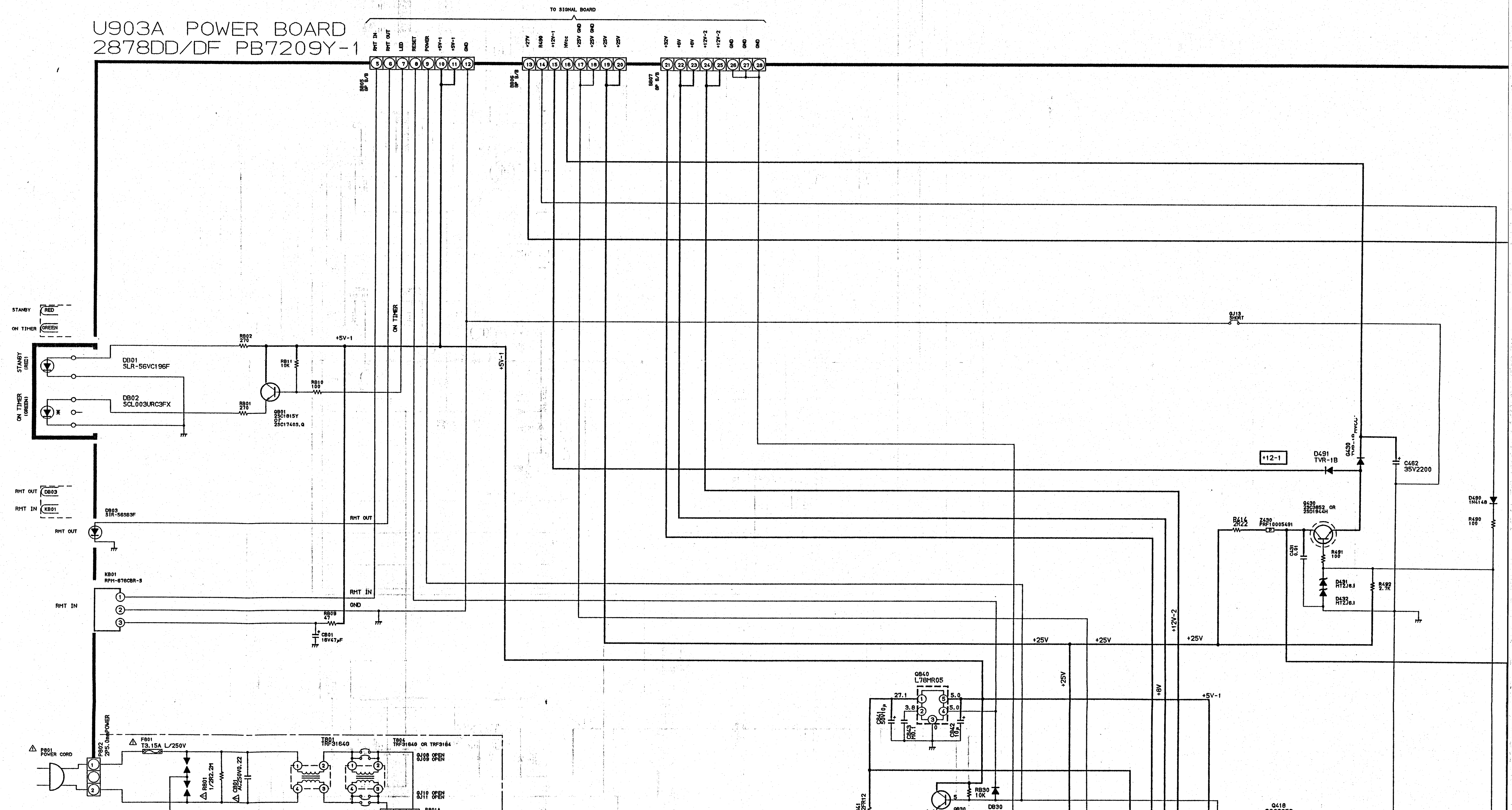

0.6Vp-p
+9V-1
SDA1,SCL1
V-BLK
D312 1SS133
+12V-1
5Vp-p SCL
5Vp-p SDA
5Vp-p
QA01 TMP87CS38N-3459
VDD
NC
SCL-ITT(PAL)
GND
SDA1
SCL1
SYNC-AV1
RHT
SW IN
RST
XOUT
XIN
GND
OSC
OSC
VSYNC
HSYNC
Y/C/M (PCL)
(DATA)
(CS)
(CLK)
GND
4:3 DET
RHT OUT
MUTE
SCART MUTE
DEF POWER
POWER
LED
RASTER SW
50/60 SW
SCL0
SDA0
VCO
NC
MODE
AFT1 IN
KEY-A
KEY-B
SGV
SGA
VSS
XA01 TCR1056
LA01 FL-10
QA02 HM24C08BN
A0
A1
A2
WP
SCL
SDA
GND
VDD
QV06 2SA1015Y
QB03 RN1205
Q362 RN1205
QV02 2SC1815Y
QA04 RN1204
QA05 2SC7520
Q201 2SA1015Y
SA02 DH DN
SA03 VOL UP
SA04 VOL DN
SA06 MENU
DH UP
SCART MUTE
MUTE
KEY A
KEY B
SGA / SGV
SGV
LED
RMT OUT
POWER
SYNC-AV1
1.9Vp-p
2.3VDC
0.8VDC
fH
fV
HD 15K
VD
HD
B OUT
G OUT
R OUT
VM
+5V-1
+5V-2
+8V
+12V-2
L511 TEM2028K
L512 TEM2028K
L513 TEM2028K
L514 TEM2028K
L515 TEM2028K
BB71 8P B/B
BB51 8P B/B
BB61 8P B/B
BB41 8P B/B
HVCC
H POSI
AFC
H OUT
GND
VD
SDA
SCL
GND
AFC
V GND
V GND
GND
H POSI
+9V-1
ABL SW
V BLK
H GND
H GND
V IN
ABL
+27V
RA90
+12V-1
HVCC
+25V GND
+25V GND
+25V
+25V
+32V
+8V
+8V
+12V-2
+12V-2
GND
GND
GND
+9V-1
B
G
R
GND
GND
GND
VM
RMT IN
RMT OUT
LED
RESET
POWER
+5V-1
+5V-1
GND
TO DEF BOARD
TO POWER BOARD
TO POWER BOARD
M902
CRT-D BOARD
TO DEF/POWER
32K Hz
Z E/W

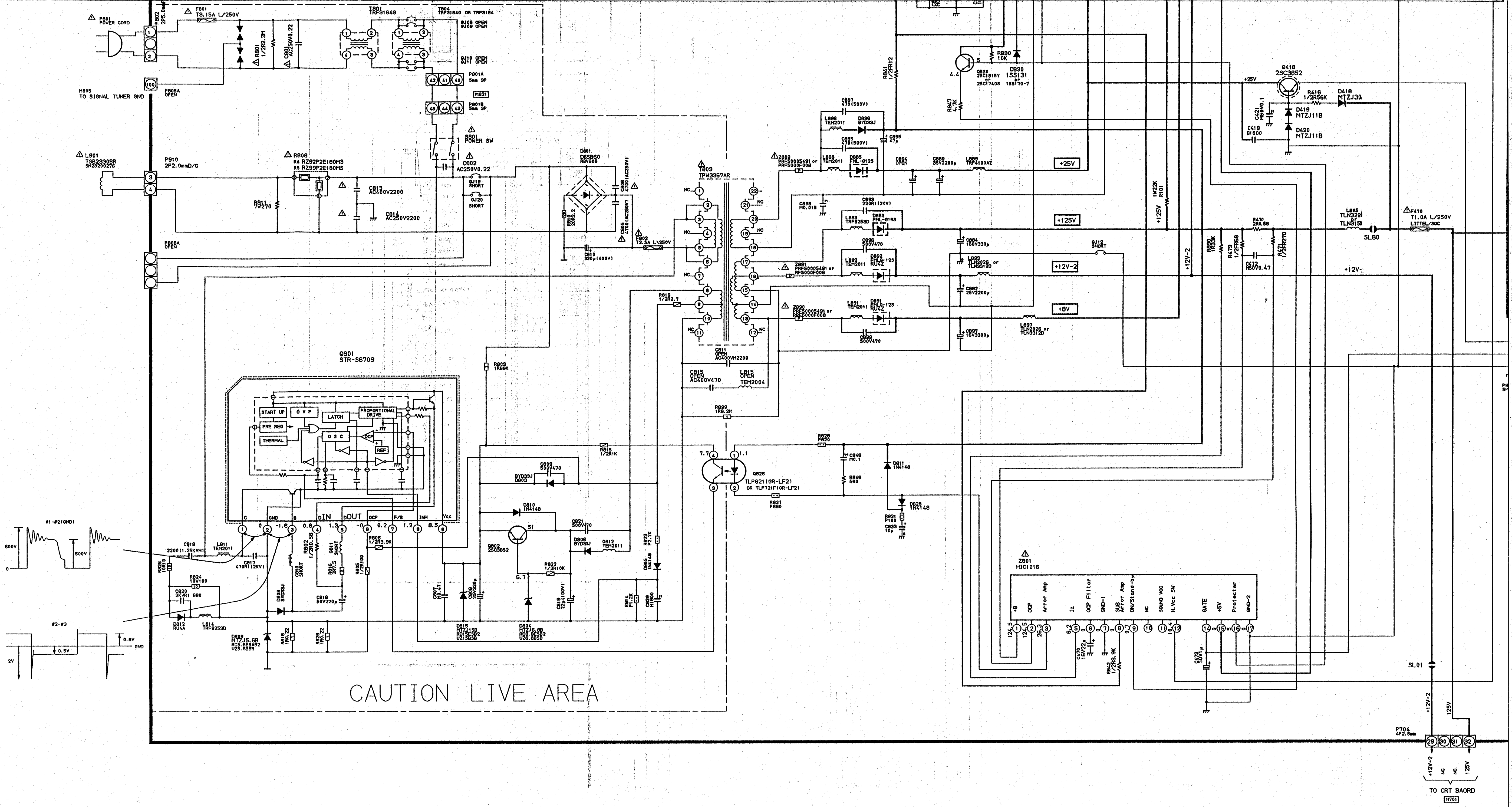
U908 PB7103X 2878DG 5/5 SEC96044 SAME

NOTE
The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.

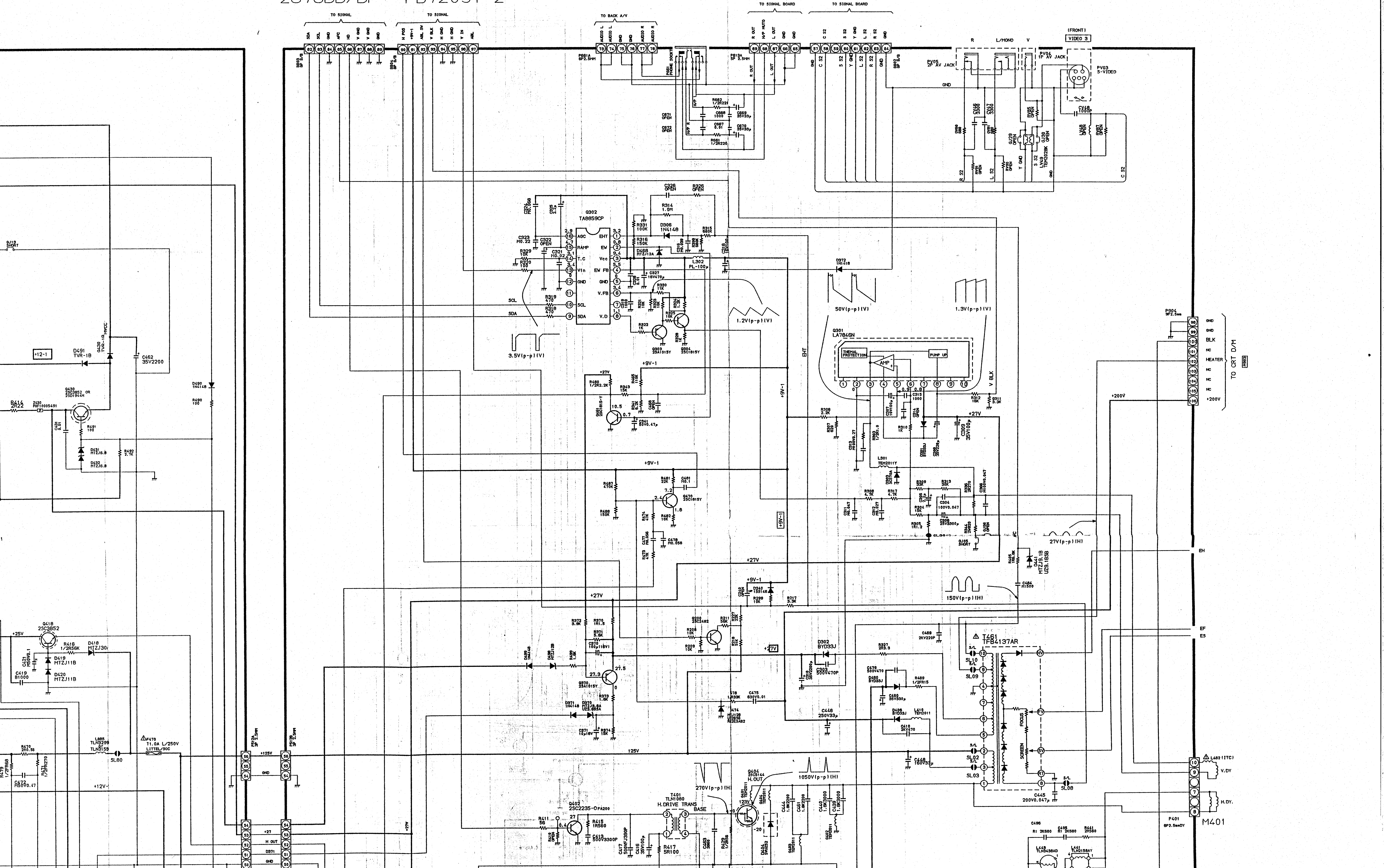
114

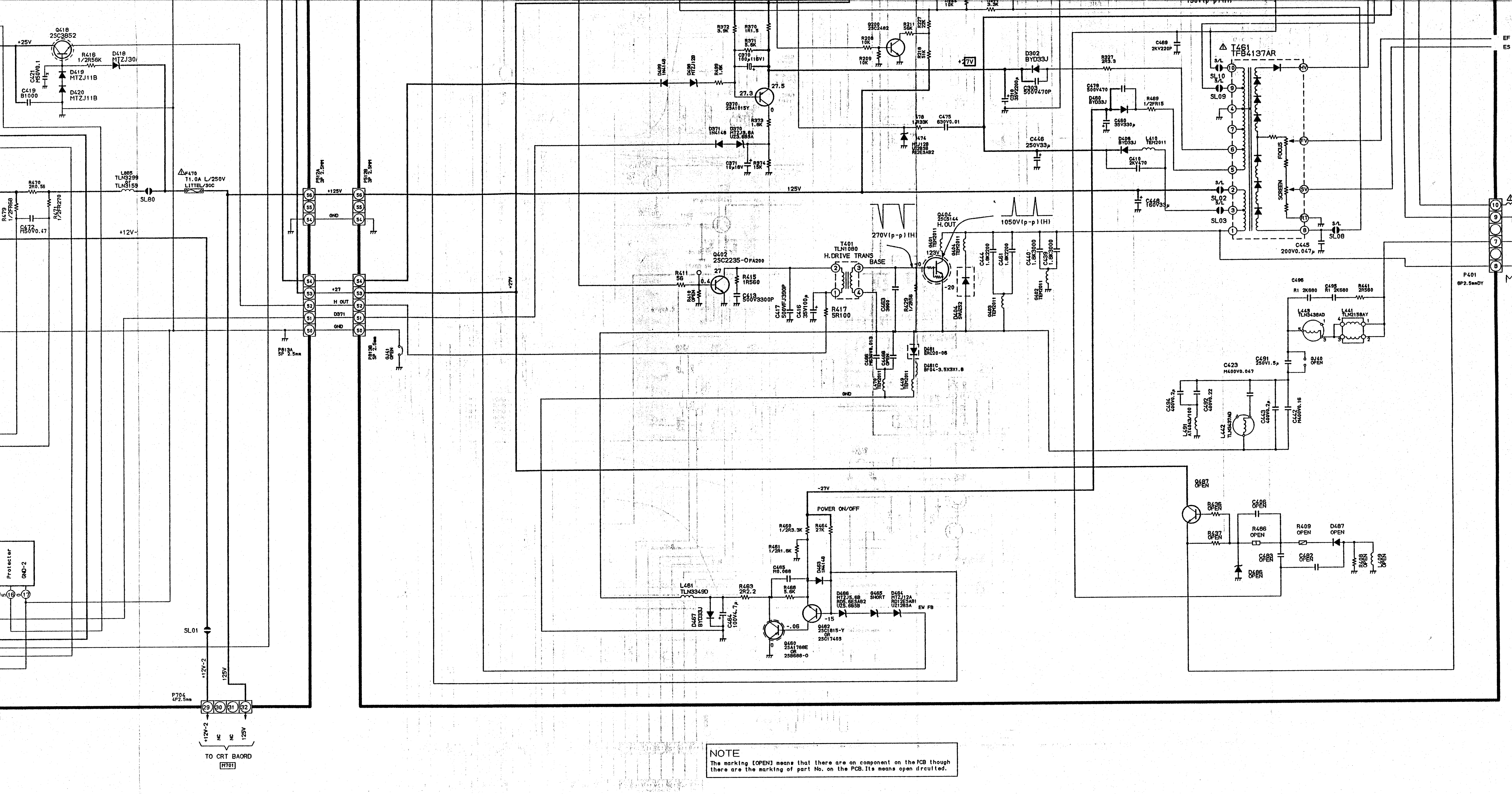
# SCHEMATIC DIAGRAM MODEL : 2876DD / 2876DF (2/4)


U903A POWER BOARD
2878DD/DF PB7209Y-1
TO SIGNAL BOARD
RMT IN
RMT OUT
LED
RESET
POWER
+5V-1
+5V-1
GND
+27V
R490
+12V-1
HVcc
+25V GND
+25V GND
+25V
+25V
+32V
+8V
+8V
+12V-2
+12V-2
GND
GND
GND
BB05 8P B/B
BB06 8P B/B
BB07 8P B/B
STANBY
RED
ON TIMER
GREEN
STANBY (RED)
ON TIMER (GREEN)
DB01
SLR-56VC196F
DB02
SCL003URC3FX
RB02 270
RB01 270
RB11 10K
RB10 100
QB01 2SC1815Y or 2SC1740S,Q
+5V-1
ON TIMER
RMT OUT
DB03
RMT IN
KB01
DB03 SIR-565B3F
RMT OUT
KB01 RPM-676CBR-S
RMT IN
RMT IN
GND
RB09 47
CB01 16V47μF
QJ12 SHORT
+12-1
D491 TVR-1B
G430
C462 35V2200
Q430 2SC3852 OR 2SD1944H
R414 2R22
Z430 PRF10005491
C431 0.01
R491 100
D431 MTZJ6.1
D432 MTZJ6.1
R492 2.7K
D490 1N4148
R490 100
+12V-2
+25V
+25V
+25V
+25V
+8V
+5V-1
Q840 L78MR05
27.1
3.8
5.0
5.0
0
C841 50V10μ
C843 M0.1
C842 10μ
RB30 10K
DB30
QB30
Q418
P801 POWER CORD
P802 2P5.0mmPOWER
F801 T3.15A L/250V
R801 1/2R2.2M
C801 AC250V0.22
T801 TRF3164G
T804 TRF3164G OR TRF3164
GJ08 OPEN
GJ09 OPEN
GJ10 OPEN
GJ11 OPEN
PB01A


P801 POWER CORD
P802 2P5.0mm
F801 T3.15A L/250V
R801 1/2R2.2M
C801 AC250V0.22
T801 TRF3164G
T804 TRF3164G OR TRF3164
GJ08 OPEN
GJ09 OPEN
GJ10 OPEN
GJ11 OPEN
P801A 5mm 3P
M821
P801B 5mm 3P
M805 TO SIGNAL TUNER GND
P805A OPEN
S801 POWER SW
C802 AC250V0.22
GJ19 SHORT
GJ20 SHORT
L901 TSB2330BR SN23200276
P910 2P2.0mmD/G
R808 RA RZ92P2E180M3 RB RZ99P2E180MS
R811 7W270
C813 AC400V2200
C814 AC250V2200
P806A OPEN
D801 D6SB60 RBV608
R810 20R2.2
C806 4700(AC250V)
C805 4700(AC250V)
C810 330μ(400V)
F802 T2.5A L\250V
T803 TPW3367AR
NC
R819 1/2R2.7
C811 OPEN AC400VM2200
C815 OPEN AC400V470
L815 OPEN TEM2004
R899 1R8.2M
R803 1R68K
Q801 STR-S6709
START UP
O V P
LATCH
PROPORTIONAL DRIVE
PRE REG
THERMAL
O S C
OCP
REF
C
GND
B
DIN
DOUT
OCP
F/B
INH
Vcc
0
-1.6
0.8
1.3
-0
0.2
1.2
8.5
#1-#2(GND)
600V
500V
0
#2-#3
0.8V
GND
0.5V
2V
C818 2200(1.25KVH)
L811 TEM2011
C817 470R(12KV)
R825 10R10
R824 10W100
C820 2KVR1 680
D812 RU4A
L814 TRF9253D
D809 MTZJ5.6B RD5.6ESAB2 UZ5.6BSB
D808 BYD33J
G810 SHORT
R802 1/2R0.56
G811 SHORT
R816 2R7.5
C816 50V220μ
R818 1R0.22
R829 1R0.22
R805 1/2R100
R806 1/2R3.9K
C807 M0.47
D815 MTZJ15B RD15ESB2 UZ15BSB
C808 25V330μ
Q802 2SC3852
51
6.7
D810 1N4148
D804 MTZJ6.8B RD6.8ESB2 UZ6.8BSB
C809 500V470
BYD33J D803
R815 1/2R1K
C821 500V470
D806 BYD33J
G812 TEM2011
R822 1/2R10K
C819 22μ(100V)
R823 P2.7K
D805 1N4148
R814 P1.2K
C829 M1800
CAUTION LIVE AREA
Q826 TLP621(GR-LF2) OR TLP721F(GR-LF2)
7.7
1.1
R828 P820
R827 P680
C846 M0.1
R846 560
D811 1N4148
D828 1N4148
R821 P100
C833 10μ
Z889 PRF50005491 or PRF5000F008
Z891 PRF50005491 or RF5000F008
Z890 PRF50005491 or PRF5000F008
C887 470(500V)
L896 TEM2011
D896 BYD33J
C895 47μ
C885 470(500V)
L886 TEM2011
D885 FML-G12S
C894 OPEN
C889 35V2200μ
L889 TRF4100AZ
+25V
C898 M0.015
C893 220R(2KV)
L883 TRF9253D
D883 FML-G16S
+125V
C896 500V470
L892 TEM2011
D892 FML-G12S RU4Z
C884 160V330μ
L893 TLN2026 or TLN3312D
GJ12 SHORT
+12V-2
C892 25V2200μ
L891 TEM2011
D891 FML-G12S RU4Z
C899 500V470
C897 16V3300μ
L897 TLN2026 or TLN3312D
+8V
R841 1/2FR12
R847 4.7K
Q830 2SC1815Y or 2SC1740S
4.4
5
R830 10K
D830 1SS131 or 1SS120-7
1W22K R101
+125V
+12V-2
R890 1R33K
R479 1/2FR68
R470 2R0.56
R471 1/2FR270
C472 M50V0.47
+12V-
Q418 2SC3852
+25V
C421 M50V0.1
C419 B1000
R416 1/2R56K
D418 MTZJ30
D419 MTZJ11B
D420 MTZJ11B
L885 TLN3299 or TLN3159
SL80
F470 T1.0A L/250V LITTEL/50C
Z801 HIC1016
+B
OCP
Arror Amp
Iz
OCP Filter
GND-1
SUB Arror Amp
ON/Stand-by
NC
SOUND VCC
H.Vcc SW
GATE
+5V
Protecter
GND-2
124.5
124.5
26.3
6.2
0
0
0
0.7
10.4
0
5
0
C470 16V22μ
R842 1/2R3.9K
C473 50V1μ
SL01
+12V-2
125V
P704 4P2.5mm
+12V-2
NC
NC
125V
TO CRT BAORD
M701

U903B DEF BOARD
2876DD/DF PB7209Y-2

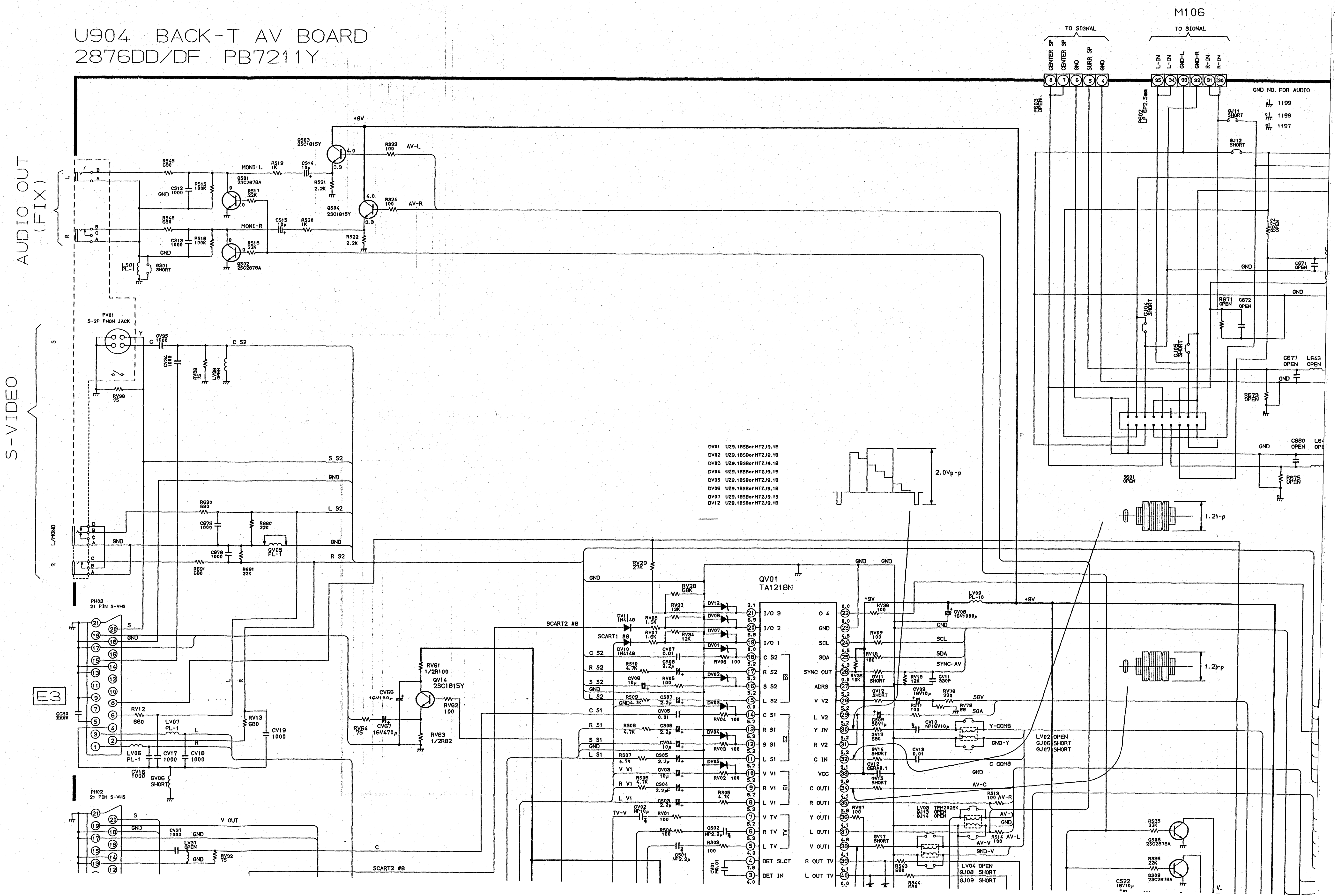

TO SIGNAL
TO SIGNAL
TO BACK A/V
TO SIGNAL BOARD
TO SIGNAL BOARD
(FRONT)
VIDEO 3
R
L/MONO
V
PV05 3P AV JACK
PV04 1P AV JACK
PV03 S-VIDEO
GND
Q302 TA8859CP
AGC
RAMP
T.C
Vin
GND
SCL
SDA
EHT
EW
Vcc
EW FB
GND
V.FB
V.D
D306 1N4148
L302 PL-100μ
Q303 2SA1015Y
Q304 2SC1815Y
3.5V(p-p)(V)
1.2V(p-p)(V)
50V(p-p)(V)
1.3V(p-p)(V)
Q301 LA7846N
THEMAL PROTECTION
AMP
PUMP UP
V BLK
+9V-1
+27V
+200V
EHT
D372 1N4148
Q461 2SC1815-Y
Q470 2SC1815Y
27V(p-p)(H)
150V(p-p)(H)
EH
EF
ES
Δ T461 TFB4137AR
D302 BYD33J
Q205 2SC2482
Q370 2SA1015Y
+125V
125V
270V(p-p)(H)
1050V(p-p)(H)
Q404 2SC5144 H.OUT
T401 TLN1080 H.DRIVE TRANS
BASE
Q402 2SC2235-OFA200
FOCUS
SCREEN
FV
SV
L482 (ITC)
V.DY
H.DY.
P401 8P2.5mmDY
M401
P904 9P2.5mm
GND
BLK
NC
HEATER
+200V
TO CRT D/M
D491 TVR-1B
Q430 2SC3852 OR 2SD1944H
C462 35V2200
Q418 2SC3852
D419 MTZJ11B
D420 MTZJ11B
L885 TLN3299 TLN3159
SL80
ΔF470 T1.0A L/250V LITTEL/30C
+12-1
+25V
+12V
+27
H OUT
GND

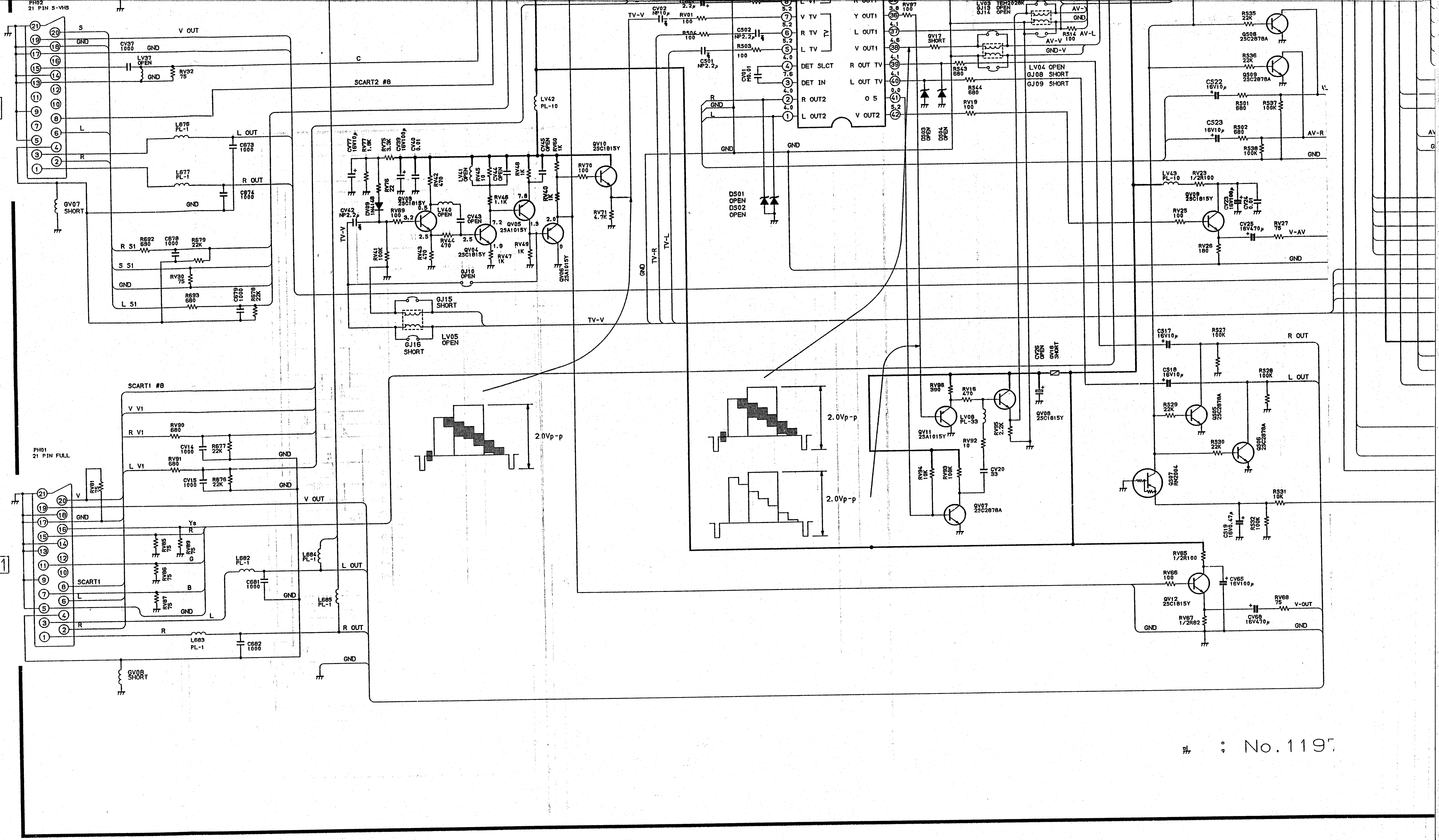

Q418
2SC3852
+25V
R416
1/2R56K
D418
MTZJ30
D419
MTZJ11B
D420
MTZJ11B
C421
M50V0.1
C419
B1000
R470
2R0.56
R479
1/2FR68
R471
1/2FR270
C472
M50V0.47
L885
TLN3299
or
TLN3159
SL80
F470
T1.0A L/250V
LITTEL/SOC
+12V
P512A
3P 2.5MM
P512B
3P 2.5MM
+125V
GND
+27
H OUT
D371
GND
P813A
5P 2.5mm
P813B
5P 2.5mm
GJ41
OPEN
Protecter
GND-2
SL01
P704
4P2.5mm
+12V-2
125V
+12V-2
NC
NC
125V
TO CRT BAORD
H701
R372
3.9K
R370
1R1.5
R371
5.6K
C370
100µ(16V)
D499
1N4148
D498
MTZJ12B
R499
1.8K
27.3
27.5
Q370
2SA1015Y
R373
1.8K
D371
1N4148
D370
MTZJ3.6A
UZ3.6BSA
C371
10µ16V
R374
15K
Q200
2SC2482
R208
10K
R209
10K
R211
56K
R227
22K
R218
51K
+27V
R478
1/2R33K
C475
630V0.01
D474
MTZJ12B
UZ12BSB
RD12ESAB2
125V
D302
BYD33J
C310
35V2200µ
C303
500V470P
C446
250V33µ
C469
2KV220P
R327
2R3.3
C479
500V470
D480
BYD33J
R489
1/2FR15
C460
35V330µ
D406
BYD33J
L410
TEM2011
C410
2KV470
C448
160V33µ
T461
TFB4137AR
S/L
SL10
SL09
SL02
SL03
SL08
HV
FV
SV
RT
FOCUS
SCREEN
C445
200V0.047µ
EF
ES
L462(ITC)
V.DY
H.DY.
P401
6P2.5mmDY
M401
270V(p-p)(H)
1050V(p-p)(H)
Q404
2SC5144
H.OUT
123V
-20
Q402
2SC2235-OFA200
R411
56
R410
OPEN
27
0.4
R415
1R560
C413
500V3300P
C417
500VFJ390P
C416
35V100µ
T401
TLN1080
H.DRIVE TRANS
BASE
R417
5R100
C463
3900
R429
1/2R56
G401
TEM2011
G404
TEM2011
D404
SVUZ52
C444
1.8K2200
C461
1.8K2200
C440
1.8K3000
C439
1.8K3000
G403
TEM2011
G402
TEM2011
C466
M630V0.013
C4468
OPEN
D481
ERC20-06
D481C
BF04-3.5X3X1.8
L470
TEM2011
L449
TEM2011
GND
C496
R1 2K680
C495
R1 2K680
R441
2R560
L443
TLN3438AD
L441
TLN2158AY
C491
250V1.5µ
GJ40
OPEN
C423
M400V0.047
C494
400V0.2µ
C492
400V0.22
L491
AT4043/100
L442
TLN3437AD
C443
400V0.2µ
C442
M400V0.16
-27V
POWER ON/OFF
R460
1/2R3.3K
R464
27K
R461
1/2R1.8K
C465
M0.068
D463
1N4148
R466
5.6K
L461
TLN3349D
R463
2R2.2
D467
BYD33J
C464
100V4.7µ
-.06
-15
Q460
2SA1768E
OR
2SB688-O
Q462
2SC1815-Y
OR
2SC1740S
D466
MTZJ5.6B
RD5.6ESAB2
UZ5.6BSB
G465
SHORT
D464
MTZJ12A
RD12ESAB1
UZ12BSA
EW FB
Q487
OPEN
R436
OPEN
C406
OPEN
R437
OPEN
R486
OPEN
R409
OPEN
D487
OPEN
C483
OPEN
C482
OPEN
D486
OPEN
R408
OPEN
L409
OPEN

NOTE

The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.

# SCHEMATIC DIAGRAM MODEL : 2876DD / 2876DF (3/4)

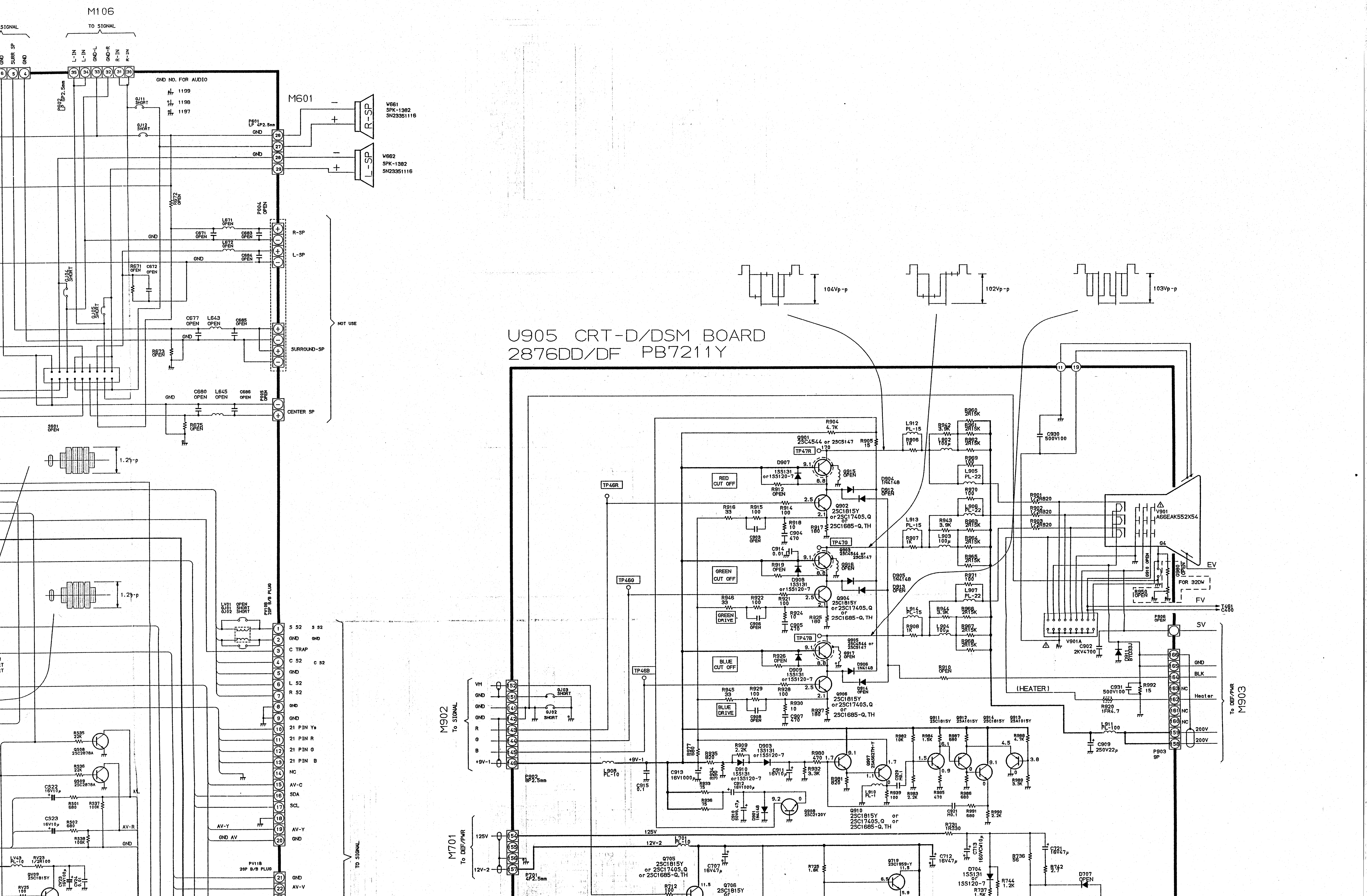

U904 BACK-T AV BOARD
2876DD/DF PB7211Y
M106
TO SIGNAL
TO SIGNAL
CENTER SP
CENTER SP
GND
SURR SP
GND
L-IN
L-IN
GND-L
GND-R
R-IN
R-IN
GND NO. FOR AUDIO
1199
1198
1197
GJ11 SHORT
GJ12 SHORT
AUDIO OUT (FIX)
S-VIDEO
L/MONO
E3
+9V
Q503 2SC1815Y
Q504 2SC1815Y
Q501 2SC2878A
Q502 2SC2878A
MONI-L
MONI-R
AV-L
AV-R
R523 100
R524 100
R521 2.2K
R522 2.2K
R545 680
R546 680
R515 100K
R516 100K
R517 22K
R518 22K
R519 1K
R520 1K
C512 1000
C513 1000
C514 10μ
C515 10μ
LS01 PL-1
GS01 SHORT
PV01 S-2P PHON JACK
CV35 1000
CV34 1000
RV98 75
RV38 75
LV38 OPEN
C S2
S S2
GND
L S2
R S2
R690 680
R691 680
C675 1000
C676 1000
R680 22K
R681 22K
GV05 PL-1
PH03 21 PIN S-VHS
PH02 21 PIN S-VHS
RV12 680
RV13 680
LV07 PL-1
LV06 PL-1
CV17 1000
CV18 1000
CV19 1000
CV16 1000
GV06 SHORT
CC30
CV37 1000
LV37 OPEN
RV32 75
V OUT
SCART2 #8
SCART1 #8
RV61 1/2R100
QV14 2SC1815Y
RV62 100
RV63 1/2R82
RV64 75
CV66 16V100μ
CV67 16V470μ
DV01 UZ9.1BSBorMTZJ9.1B
DV02 UZ9.1BSBorMTZJ9.1B
DV03 UZ9.1BSBorMTZJ9.1B
DV04 UZ9.1BSBorMTZJ9.1B
DV05 UZ9.1BSBorMTZJ9.1B
DV06 UZ9.1BSBorMTZJ9.1B
DV07 UZ9.1BSBorMTZJ9.1B
DV12 UZ9.1BSBorMTZJ9.1B
2.0Vp-p
1.2Vp-p
QV01 TA1218N
RV29 27K
RV28 68K
RV33 12K
RV34 12K
RV08 1.5K
RV07 1.6K
DV11 1N4148
DV10 1N4148
I/O 3
I/O 2
I/O 1
C S2
R S2
S S2
L S2
C S1
R S1
S S1
L S1
V V1
R V1
L V1
V TV
R TV
L TV
DET SLCT
DET IN
O 4
GND
SCL
SDA
SYNC OUT
ADRS
V V2
L V2
Y IN
R V2
C IN
VCC
C OUT1
R OUT1
Y OUT1
L OUT1
V OUT1
R OUT TV
L OUT TV
E3
E2
E1
TV
TV-V
LV09 PL-10
CV08 16V1000μ
RV36 100
RV09 100
RV18 100
RV35 10K
GV11 SHORT
RV16 12K
CV11 330P
GV12 SHORT
CV09 16V10μ
RV78 220
RV79 68
SGV
SGA
SYNC-AV
Y-COMB
GND-Y
C COMB
AV-C
CV10 NP16V10μ
GV13 680
GV14 SHORT
CV13 0.01
CV12 CERA0.1
GV15 SHORT
LV02 OPEN
GJ06 SHORT
GJ07 SHORT
R513 100 AV-R
R514 AV-L 100
AV-V 100
GND-V
LV03 TEM2026K
GJ13 OPEN
GJ14 OPEN
LV04 OPEN
GJ08 SHORT
GJ09 SHORT
GV17 SHORT
RV97 100
R543 680
R544 680
R535 22K
R536 22K
Q508 2SC2878A
Q509 2SC2878A
CS22 16V10μ
R603 OPEN
P802 PP2.5mm
R672 OPEN
C671 OPEN
R671 OPEN
C672 OPEN
GJ04 SHORT
GJ05 SHORT
C677 OPEN
L643 OPEN
R673 OPEN
C680 OPEN
R675 OPEN
S601 OPEN

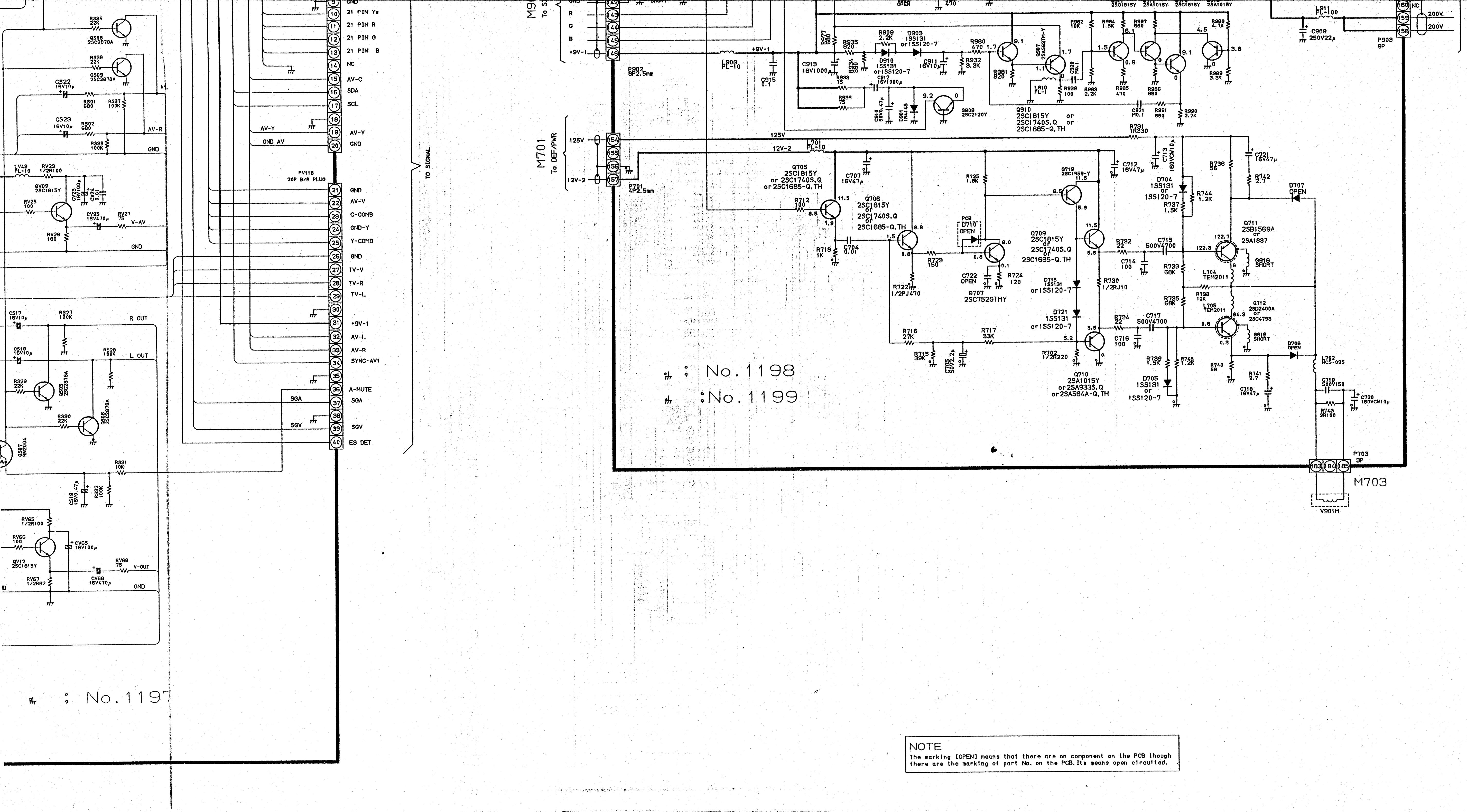


E2
PH02
21 PIN S-VHS
S
V OUT
GND
CV37 1000
LV37 OPEN
RV32 75
C
SCART2 #8
L
L676 PL-1
L OUT
C673 1000
R
L677 PL-1
R OUT
C674 1000
QV07 SHORT
R S1
S S1
L S1
R692 680
C678 1000
R679 22K
RV30 75
R693 680
C679 1000
R678 22K
SCART1 #8
V V1
R V1
L V1
RV90 680
CV14 1000
R677 22K
RV91 680
CV15 1000
R676 22K
PH01
21 PIN FULL
RV81 75
E1
Ys
RV85 75
RV89 75
RV86 75
RV87 75
G
B
SCART1
L682 PL-1
C681 1000
L683 PL-1
C682 1000
L684 PL-1
L685 PL-1
QV08 SHORT
LV42 PL-10
QV10 2SC1815Y
RV76 100
RV71 4.7K
QV09 2SC1815Y
QV05 2SA1015Y
QV04 2SC1815Y
QV06 2SA1015Y
CV42 NP2.2μ
DV03 1N4148
RV89 100
LV40 OPEN
CV43 OPEN
RV43 470
RV44 470
RV41 100K
RV46 1.1K
RV47 1K
RV49 1K
RV40 1K
GJ10 OPEN
GJ15 SHORT
GJ16 SHORT
LV05 OPEN
TV-V
TV-R
TV-L
2.0Vp-p
CV02 NP10μ
RV01 100
R504 100
R503 100
C502 NP2.2μ
C501 NP2.2μ
CV01 M6.8
V TV
R TV
L TV
DET SLCT
DET IN
R OUT2
L OUT2
Y OUT1
L OUT1
V OUT1
R OUT TV
L OUT TV
O 5
V OUT2
RV97 100
QV17 SHORT
R543 680
R544 680
RV19 100
LV03 TEM2026K
GJ13 OPEN
GJ14 OPEN
LV04 OPEN
GJ08 SHORT
GJ09 SHORT
R514 100
AV-L
AV-V
GND-V
DS03 OPEN
DS04 OPEN
DS01 OPEN
DS02 OPEN
R535 22K
Q508 2SC2878A
R536 22K
Q509 2SC2878A
C522 16V10μ
R501 680
R537 100K
C523 16V10μ
R502 680
R538 100K
AV-R
LV43 PL-10
RV23 1/2R100
QV09 2SC1815Y
RV25 100
CV25 16V470μ
RV27 75
V-AV
RV26 180
C517 16V10μ
R527 100K
R OUT
C518 16V10μ
R528 100K
L OUT
R529 22K
Q505 2SC2878A
R530 22K
Q506 2SC2878A
Q507 RN2204
R531 10K
C519 16V0.47μ
R532 100K
RV98 390
RV16 470
QV11 2SA1015Y
LV08 PL-33
QV00 2SC1815Y
CV26 OPEN
GV18 SHORT
RV95 2.2K
RV92 10
CV20 33
RV94 10K
RV93 100K
QV07 2SC2878A
RV65 1/2R100
RV66 100
QV12 2SC1815Y
CV65 16V100μ
RV68 75
V-OUT
CV68 16V470μ
RV67 1/2R82
GND

No.1197

# U905 CRT-D/DSM BOARD
# 2876DD/DF PB7211Y


M106
TO SIGNAL
SIGNAL
GND NO. FOR AUDIO
1199
1198
1197
M601
W661
SPK-1382
SN23351116
W662
SPK-1382
SN23351116
R-SP
L-SP
P601
LP 4P2.5mm
GND
NOT USE
R-SP
L-SP
SURROUND-SP
CENTER SP
1.2Vp-p
1.2Vp-p
PV11B
20P B/B PLUG
S S2
GND
C TRAP
C S2
GND
L S2
R S2
GND
GND
21 PIN Ys
21 PIN R
21 PIN G
21 PIN B
NC
AV-C
SDA
SCL
AV-Y
GND
GND
AV-V
TO SIGNAL
104Vp-p
102Vp-p
103Vp-p
RED
CUT OFF
GREEN
CUT OFF
GREEN
DRIVE
BLUE
CUT OFF
BLUE
DRIVE
TP46R
TP46G
TP46B
TP47R
TP47G
TP47B
Q901
2SC4544 or 2SC5147
Q902
2SC1815Y
or 2SC1740S,Q
or
2SC1685-Q,TH
Q903
2SC4544 or 2SC5147
Q904
2SC1815Y
or 2SC1740S,Q
or
2SC1685-Q,TH
Q905
2SC4544 or 2SC5147
Q906
2SC1815Y
or 2SC1740S,Q
or
2SC1685-Q,TH
V901
A66EAK552X54
G4
EV
FV
SV
FOR 32DW
T461
C400
(HEATER)
GND
BLK
Heater
NC
NC
NC
200V
200V
P903
9P
M903
To DEF/PWR
M902
To SIGNAL
VM
GND
GND
GND
R
G
B
+9V-1
P902
8P2.5mm
M701
To DEF/PWR
125V
12V-2
P701
4P2.5mm
Q910
2SC1815Y or
2SC1740S,Q or
2SC1685-Q,TH
Q908
2SC2120Y
Q911
2SC1815Y
Q912
2SA1015Y
Q914
2SC1815Y
Q913
2SA1015Y
Q705
2SC1815Y
or 2SC1740S,Q
or 2SC1685-Q,TH
Q706
2SC1815Y
Q719
2SC1959-Y
D704
1SS131
or
1SS120-7
D707
OPEN
C902
2KV4700
C930
500V100
C931
500V100
C909
250V22μ
R920
1FR4.7
R992
15
L911
PL-100

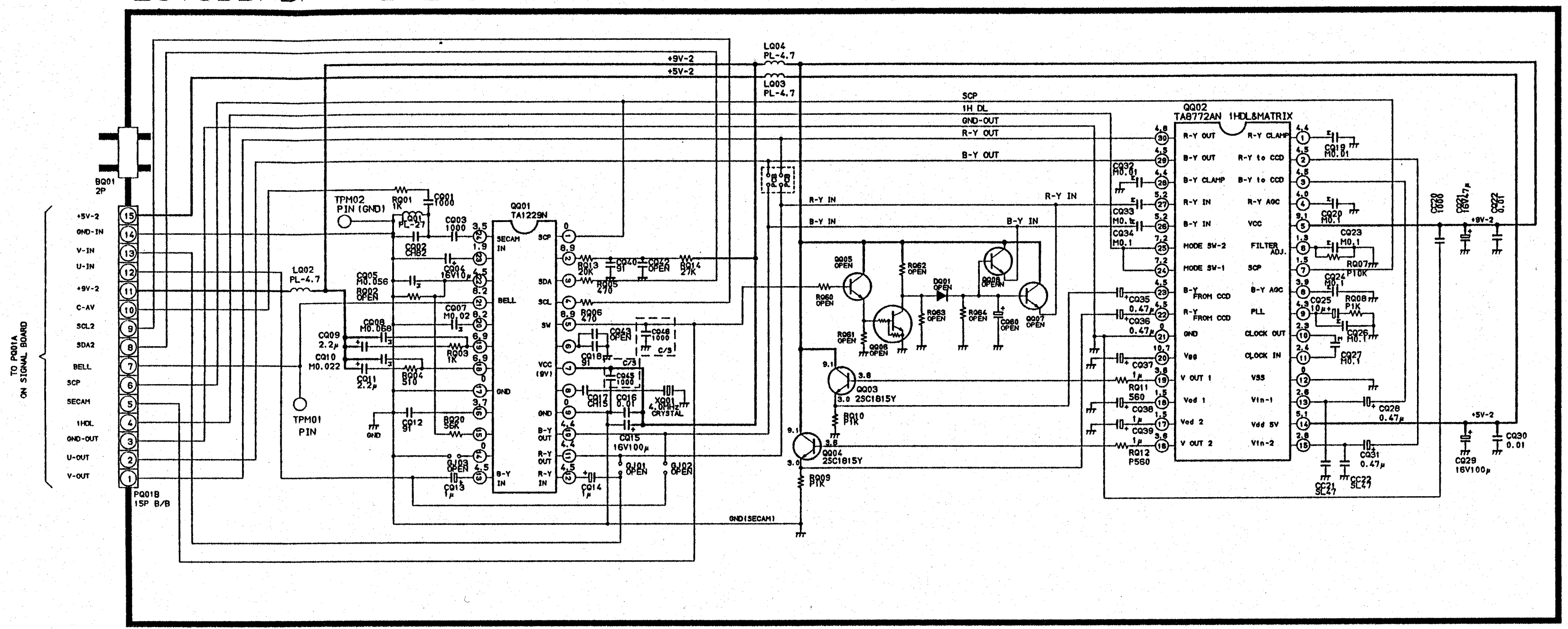

21 PIN Ys
21 PIN R
21 PIN G
21 PIN B
NC
AV-C
SDA
SCL
AV-Y
GND AV
GND
PV11B
20P B/B PLUG
AV-V
C-COMB
GND-Y
Y-COMB
TV-V
TV-R
TV-L
+9V-1
AV-L
AV-R
SYNC-AV1
A-MUTE
SGA
SGV
E3 DET
TO SIGNAL
R OUT
L OUT
V-AV
V-OUT
AV-R
Q508 2SC2878A
Q509 2SC2878A
QV09 2SC1815Y
QV12 2SC1815Y
Q527 RN2004
No.1197
No.1198
No.1199
M9
R
G
B
+9V-1
P902 6P2.5mm
L906 PL-10
C913 16V1000μ
C915 0.1
Q907
Q908 2SC2120Y
Q910 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
D903 1SS131 or 1SS120-7
D910 1SS131 or 1SS120-7
D901 1N4148
L911 PL-100
C909 250V22μ
P903 9P
NC
200V
200V
M701
To DEF/PWR
125V
12V-2
P701 4P2.5mm
L701 PL-10
Q705 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
Q706 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
Q707 2SC752GTMY
PCB D710 OPEN
C722 OPEN
Q709 2SC1815Y or 2SC1740S,Q or 2SC1685-Q,TH
Q719 2SC1959-Y
Q710 2SA1015Y or 2SA933S,Q or 2SA564A-Q,TH
D715 1SS131 or 1SS120-7
D721 1SS131 or 1SS120-7
D704 1SS131 or 1SS120-7
D705 1SS131 or 1SS120-7
Q711 2SB1569A or 2SA1837
Q712 2SD2400A or 2SC4793
Q918 SHORT
Q919 SHORT
L704 TEM2011
L705 TEM2011
D707 OPEN
D706 OPEN
L702 HCS-035
C720 160VCV10μ
P703 3P
M703
V901M

NOTE
The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB. Its means open circuited.

3/4

# SCHEMATIC DIAGRAM MODEL : 2876DD / 2876DF (4/4)

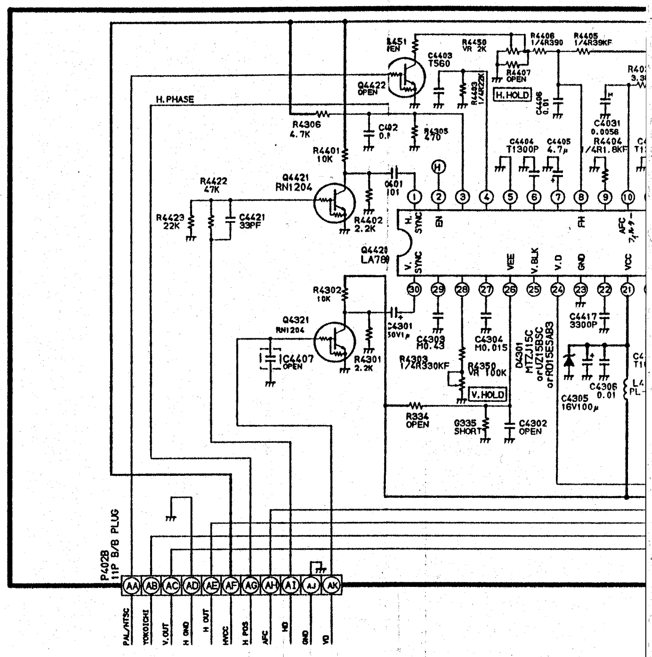
U906 SECAM+1HDL BOARD
2876DD/DF PB7213X-1



TO PQ01A ON SIGNAL BOARD
+5V-2
GND-IN
V-IN
U-IN
+5V-2
C-AV
SCL2
SDA2
BELL
SCP
SECAM
1HDL
GND-OUT
U-OUT
V-OUT
PQ01B 15P B/B
BQ01 2P
TPH02 PIN (GND)
TPM01 PIN
QQ01 TA1229N
QQ02 TA8772AN 1HDL&MATRIX
LQ02 PL-4.7
LQ03 PL-4.7
LQ04 PL-4.7
QQ03 2SC1815Y
QQ04 2SC1815Y
R-Y IN
B-Y IN
SCP
1H DL
GND-OUT
R-Y OUT
B-Y OUT
+5V-2
GND(SECAM)

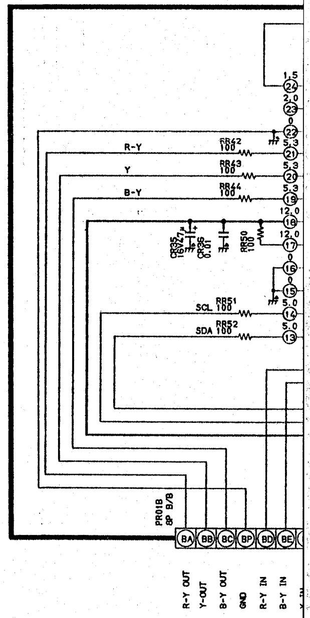
| | 2876DG | W/O SECAM |
|---|---|---|
| QQ05 | DELETE | 2SC1815Y |
| QQ06 | DELETE | RN1203 |
| QQ07 | DELETE | 2SC1815Y |
| QQ08 | DELETE | 2SC1815Y |
| DQ01 | DELETE | 1SS131 |
| CQ60 | DELETE | 2.2μ |
| RQ60 | DELETE | 100 |
| RQ61 | DELETE | 10K |
| RQ62 | DELETE | 10K |
| RQ63 | DELETE | 10K |
| RQ64 | DELETE | 100K |

U902B PAL 100HZ BOARD
2876DD/DF PB7213K-4

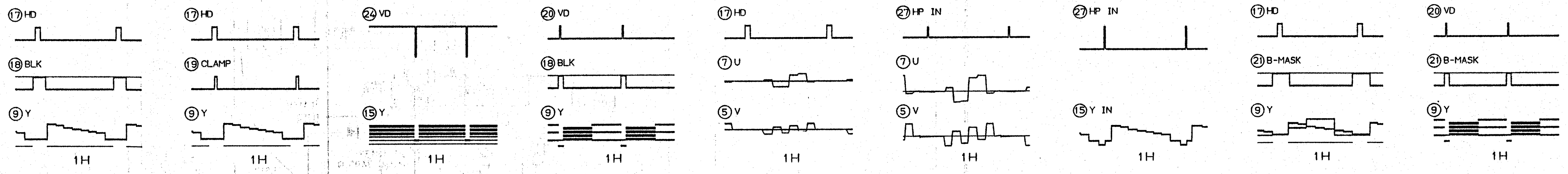


H.PHASE
H.HOLD
V.HOLD
Q4421 RN1204
Q4321 RN1204
Q4421 LA78
P402B 11P B/B PLUG

U902C YUV SW
2876DD/DF PB7

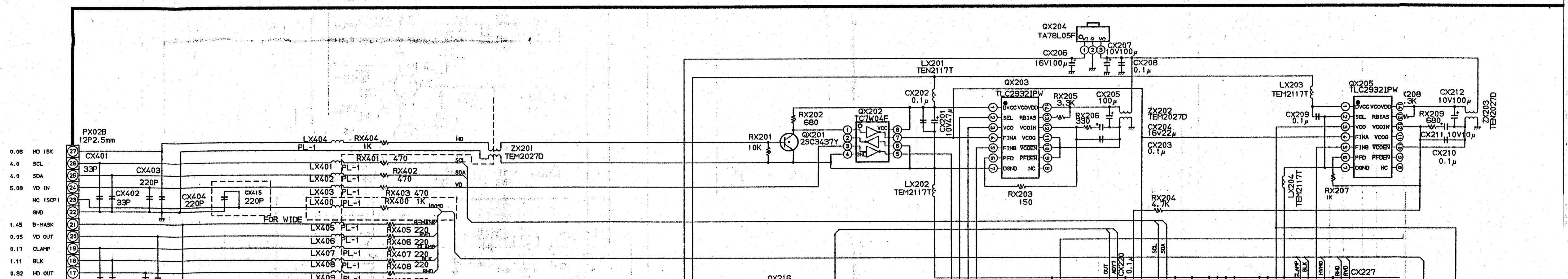


R-Y
Y
B-Y
R-Y OUT
Y-OUT
B-Y OUT

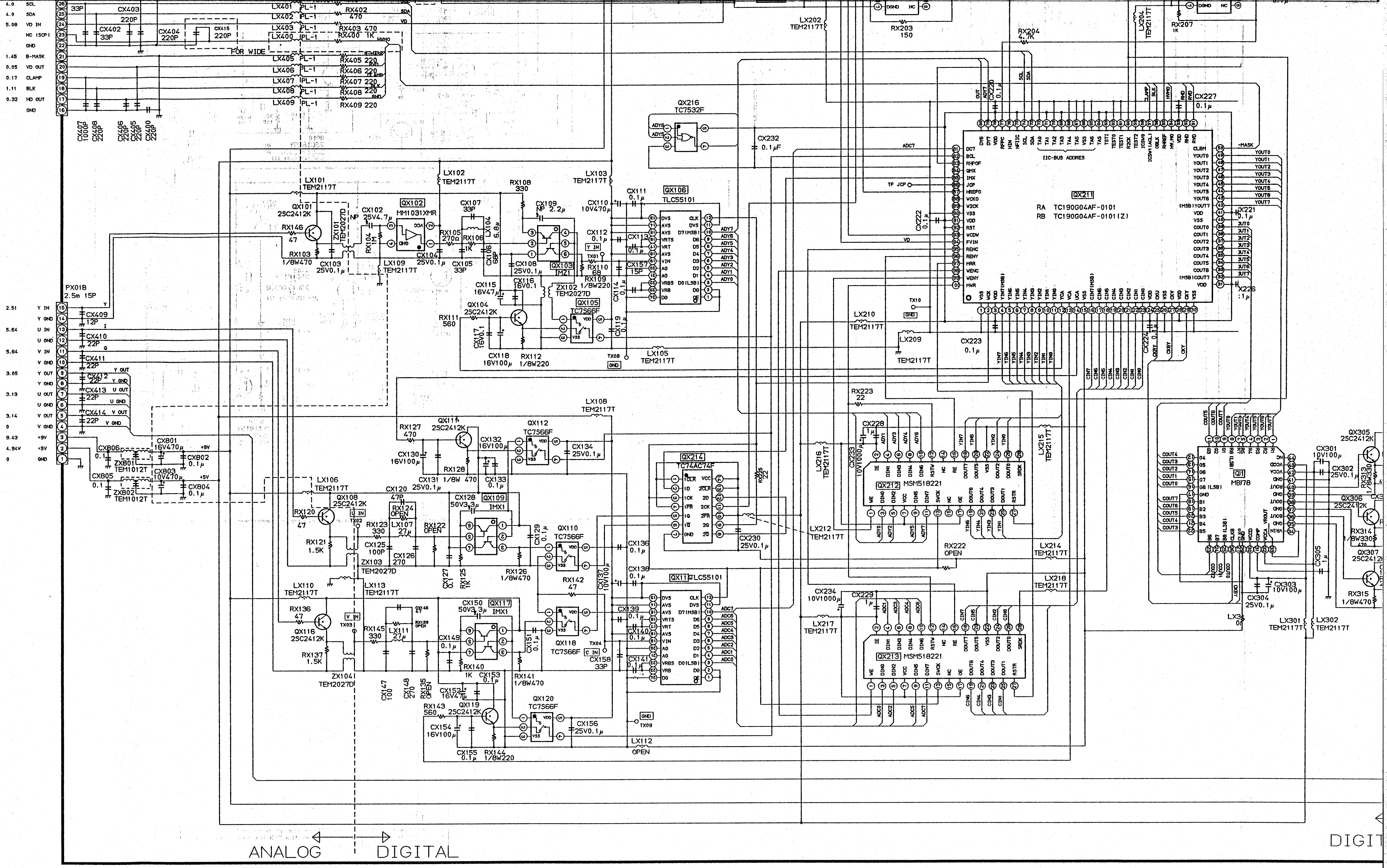


⑰HD
⑱BLK
⑨Y
1H
⑰HD
⑲CLAMP
⑨Y
1H
㉔VD
⑮Y
1H
⑳VD
⑱BLK
⑨Y
1H
⑰HD
⑦U
⑤V
1H
㉗HP IN
⑦U
⑤V
1H
㉗HP IN
⑮Y IN
1H
⑰HD
㉑B-MASK
⑨Y
1H
⑳VD
㉑B-MASK
⑨Y
1H

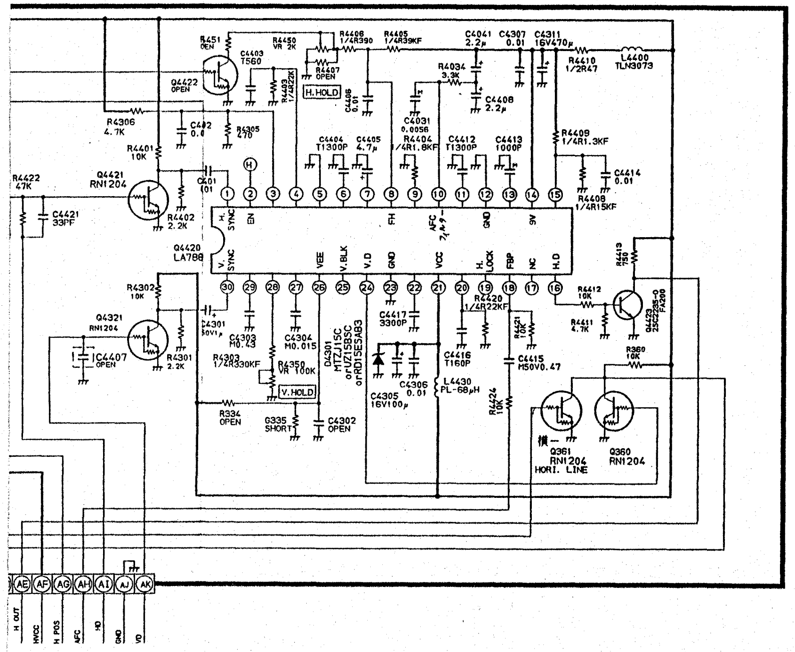
U908 UP CONVERTER BOARD
2876DD/DF PB7366X



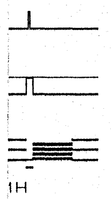
PX02B 12P2.5mm
0.06 HD 15K
4.0 SCL
4.0 SDA
5.08 VD IN
NC (SCP)
GND
1.45 B-MASK
0.05 VD OUT
0.17 CLAMP
1.11 BLK
0.32 HD OUT
FOR WIDE
QX204 TA78L05F
QX201 2SC3437Y
QX202 TC7W04F
QX203 TLC2932IPW
QX205 TLC2932IPW
LX201 TEN2117T
LX202 TEM2117T
LX203 TEM2117T
ZX201 TEM2027D
ZX202 TEM2027D


SCL
SDA
VD IN
NC (SCP)
GND
B-MASK
VD OUT
CLAMP
BLK
HD OUT
Y IN
Y GND
U IN
U GND
V IN
V GND
Y OUT
U OUT
V OUT
+9V
+5V
PX01B
2.5m 15P
CX402 33P
CX403 220P
CX404 220P
CX415 220P
FOR WIDE
LX401 PL-1
LX402 PL-1
LX403 PL-1
LX400 PL-1
LX405 PL-1
LX406 PL-1
LX407 PL-1
LX408 PL-1
LX409 PL-1
RX402 470
RX403 470
RX400 1K
RX405 220
RX406 220
RX407 220
RX408 220
RX409 220
CX407 1000P
CX408 220P
CX406 220P
CX405 220P
CX400 220P
CX409 12P
CX410 22P
CX411 22P
CX412 22P
CX413 22P
CX414 22P
CX806 0.1
CX805 0.1
ZX801 TEM1012T
ZX802 TEM1012T
CX801 16V470μ
CX802 0.1μ
CX803 10V470μ
CX804 0.1μ
LX101 TEM2117T
QX101 2SC2412K
RX146 47
RX103 1/8W470
ZX101 TEM2027D
CX102 25V4.7μ
CX103 25V0.1μ
RX104
QX102 MM1031XMR
LX102 TEM2117T
LX109 TEM2117T
CX107 33P
RX105 270
RX106 1K
LX104 6.8μ
CX104 25V0.1μ
CX105 33P
CX106 68P
RX108 330
CX109 NP 2.2μ
CX108 25V0.1μ
QX103 IMZ1
CX115 16V47μ
CX116 16V0.1
ZX102 TEM2027D
QX104 2SC2412K
RX111 560
CX117
CX118 16V100μ
RX112 1/8W220
QX105 TC7S66F
LX103 TEM2117T
CX110 10V470μ
CX111 0.1μ
CX112 0.1μ
CX113 0.1μ
Y IN
TX01
RX110 68
RX109 1/8W220
CX157 15P
CX114 0.1μ
CX119 0.1μ
TX08
GND
LX105 TEM2117T
QX106 TLC55101
QX216 TC7532F
ADY6
ADY5
CX232 0.1μF
ADC7
TP JCP
CX222 0.1μ
VD
QX211
RA TC190G04AF-0101
RB TC190G04AF-0101(Z)
IIC-BUS ADDRES
CX227 0.1μ
CX221 0.1μ
X226 .1μ
TX10
GND
LX210 TEM2117T
LX209 TEM2117T
CX223 0.1μ
CX224
LX202 TEM2117T
RX203 150
RX204 4.7K
LX204 TEM2117T
RX207 1K
DGND
NC
-MASK
YOUT0
YOUT1
YOUT2
YOUT3
YOUT4
YOUT5
YOUT6
YOUT7
LX108 TEM2117T
RX127 470
QX111 2SC2412K
CX130 16V100μ
RX128
CX131 25V0.1μ
CX132 16V100μ
QX112 TC7S66F
CX134 25V0.1μ
CX133 0.1μ
LX106 TEM2117T
RX120 47
QX108 2SC2412K
CX120 47P
RX124 OPEN
RX123 330
LX107 27μ
RX122 OPEN
CX125 100P
CX126 270
RX121 1.5K
ZX103 TEM2027D
CX128 50V3.3μ
QX109 IMX1
CX129 0.1μ
CX127
RX125 1K
RX126 1/8W470
QX110 TC7S66F
CX136 0.1μ
CX137 10V100
RX142 47
CX138 0.1μ
LX110 TEM2117T
LX113 TEM2117T
RX136 47
QX116 2SC2412K
RX137 1.5K
V IN
TX03
RX145 330
LX111 27μ
RX139 OPEN
CX150 50V3.3μ
QX117 IMX1
CX149 0.1μ
CX151 0.1μ
RX140 1K
CX153 0.1μ
RX141 1/8W470
QX118 TC7S66F
ZX104 TEM2027D
CX147 100
CX148 270
RX135 OPEN
CX152 16V4.7μ
RX143 560
QX119 2SC2412K
CX154 16V100μ
CX155 0.1μ
RX144 1/8W220
QX120 TC7S66F
CX156 25V0.1μ
GND
TX09
LX112 OPEN
QX113 TLC55101
CX139 0.1μ
CX140 0.1μ
CX141
CX158 33P
C IN
TX04
ADC7
ADC6
ADC5
ADC4
ADC3
ADC2
ADC1
ADC0
QX214 TC74AC74F
CX230 25V0.1μ
LX212 TEM2117T
RX225 22
RX223 22
CX228 1μ
CX233 10V1000μ
LX216 TEM2117T
QX212 MSM518221
LX215 TEM2117T
RX222 OPEN
LX214 TEM2117T
CX234 10V1000μ
CX229 1μ
LX217 TEM2117T
QX213 MSM518221
LX218 TEM2117T
QX305 2SC2412K
CX301 10V100μ
CX302 25V0.1μ
RX313
QX1 MB78
QX306 2SC2412K
RX314 1/8W330
QX307 2SC2412K
CX305 1μ
CX303 10V100μ
CX304 25V0.1μ
RX315 1/8W470
LX301 TEM2117T
LX302 TEM2117T
ANALOG
DIGITAL
DIGIT

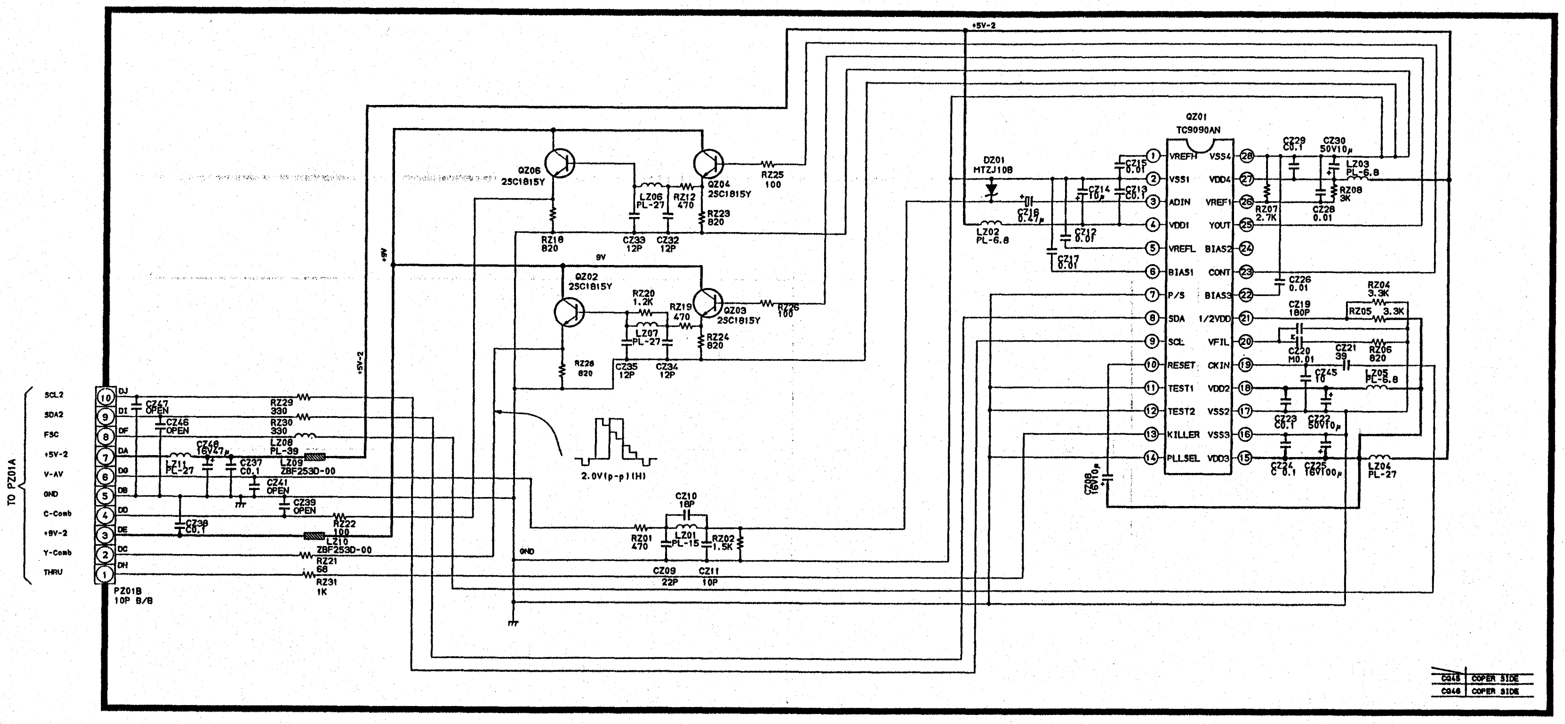
L 100HZ BOARD
F PB7213X-4



Q4420
LA788
Q4421
RN1204
Q4321
RN1204
Q4422
Q361
RN1204
HORI. LINE
Q360
RN1204
H.HOLD
V.HOLD
L4400
TLN3073
L4430
FL-68μH

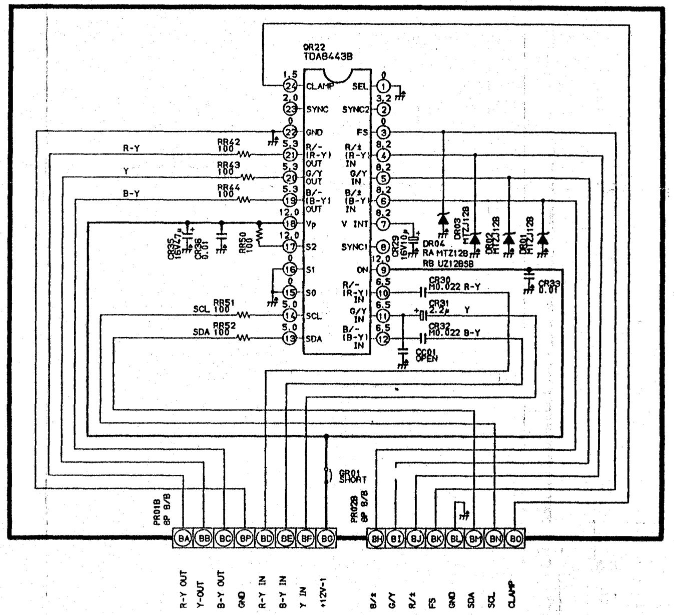


U906 COMB BOARD
2876DD/DF PB7213X-2



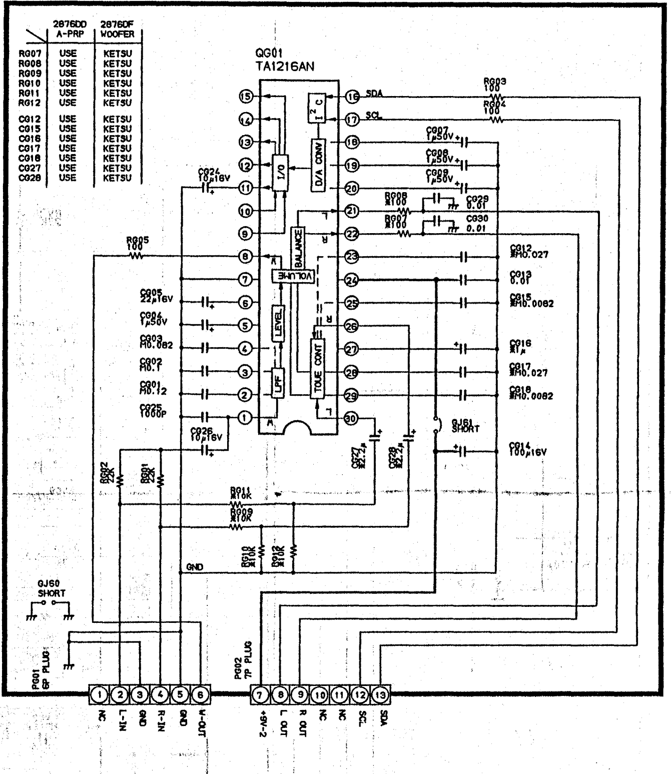
+5V-2
QZ01
TC9090AN
QZ06
2SC1815Y
QZ04
2SC1815Y
QZ02
2SC1815Y
QZ03
2SC1815Y
DZ01
MTZJ10B
TO PZ01A
PZ01B
10P B/B
SCL2
SDA2
FSC
+5V-2
V-AV
GND
C-Comb
+5V-2
Y-Comb
THRU
2.0V(p-p)(H)

U902C YUV SW BOARD
2876DD/DF PB7213X-3

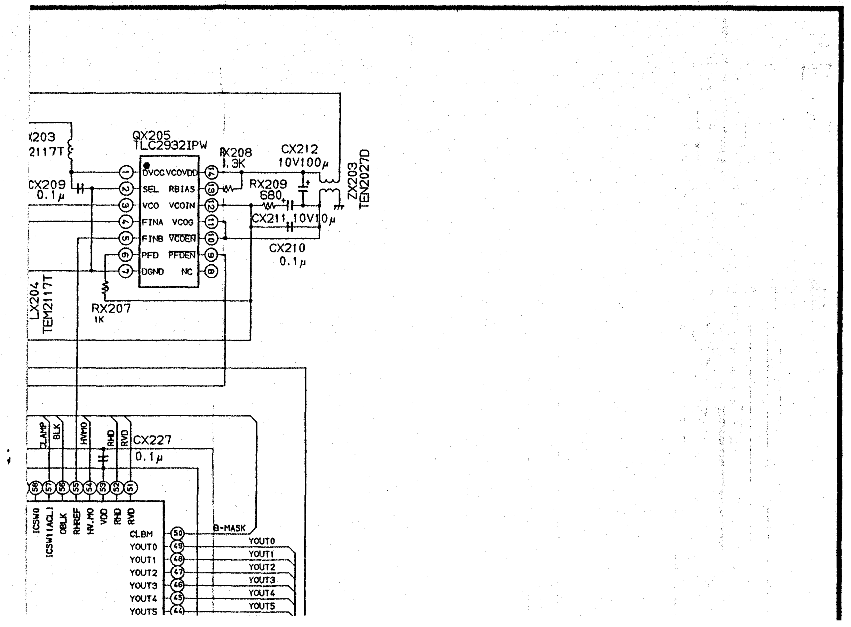


QR22
TDA8443B
R-Y
Y
B-Y
QR01
SHORT
PR01B
8P B/B
PR02B
8P B/B
R-Y OUT
Y-OUT
B-Y OUT
GND
R-Y IN
B-Y IN
Y IN
+12V-1
B/Y
G/Y
R/Y
FS
GND
SDA
SCL
CLAMP

U902D A PRO/WOOFER BOARD
2876DD PB7208N-2 A-PRO
2876DF PB7208C-2 WOOFER

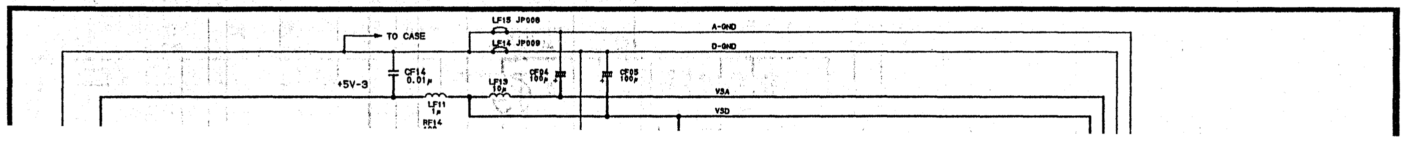


2876DD A-PRO
2876DF WOOFER
QG01
TA1216AN
VOLUME
BALANCE
LEVEL
TONE CONT
D/A CONV
GJ60
SHORT
GJ61
SHORT
PG01
6P PLUG
PG02
7P PLUG
SDA
SCL
GND

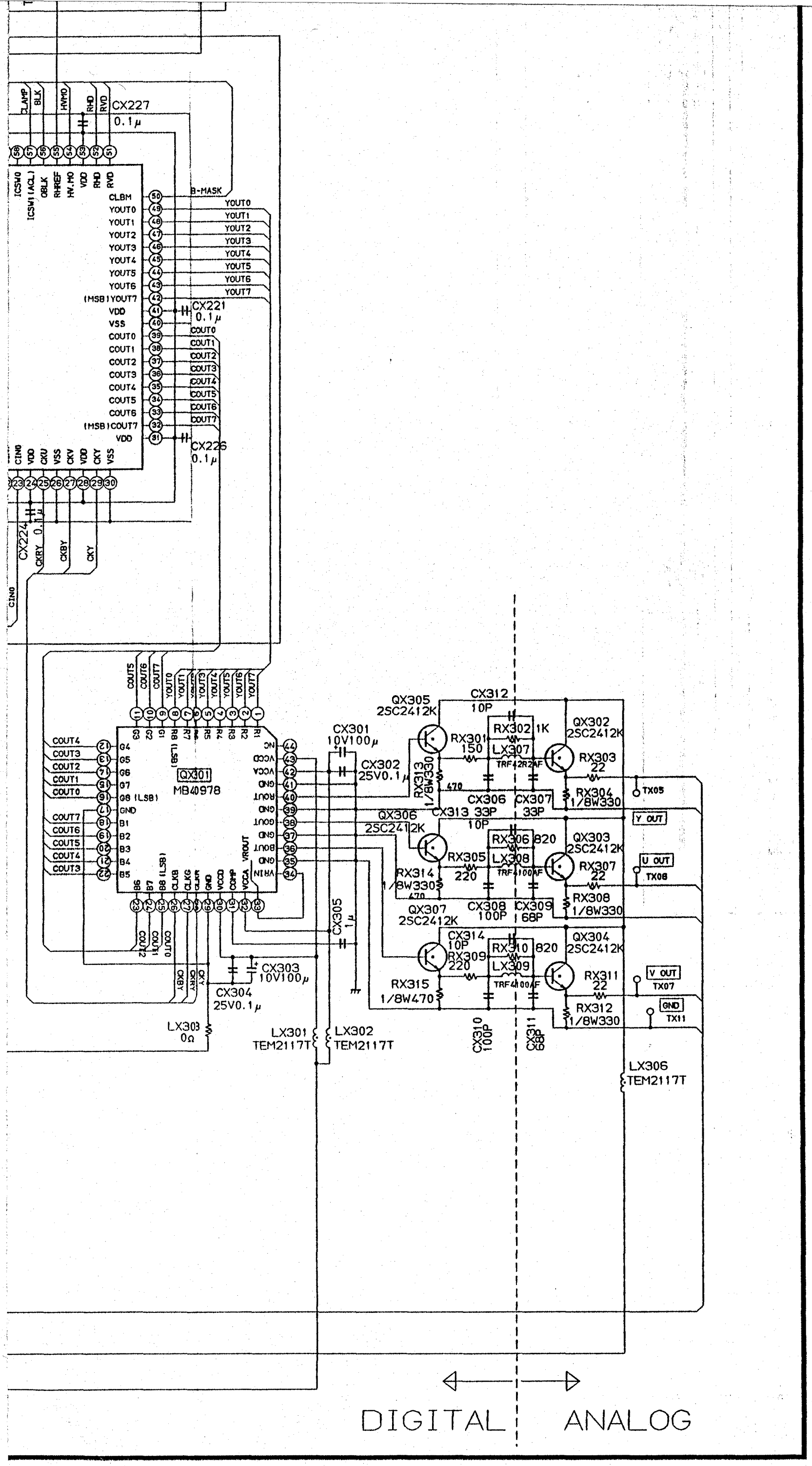


QX205
TLC2932IPW
RX208
1.3K
CX212
10V100μ
ZX203
TEN2027D
CX209
0.1μ
RX209
680
CX211 10V10μ
CX210
0.1μ
LX204
TEM2117T
RX207
1K
CX227
0.1μ
B-MASK
YOUT0
YOUT1
YOUT2
YOUT3
YOUT4
YOUT5

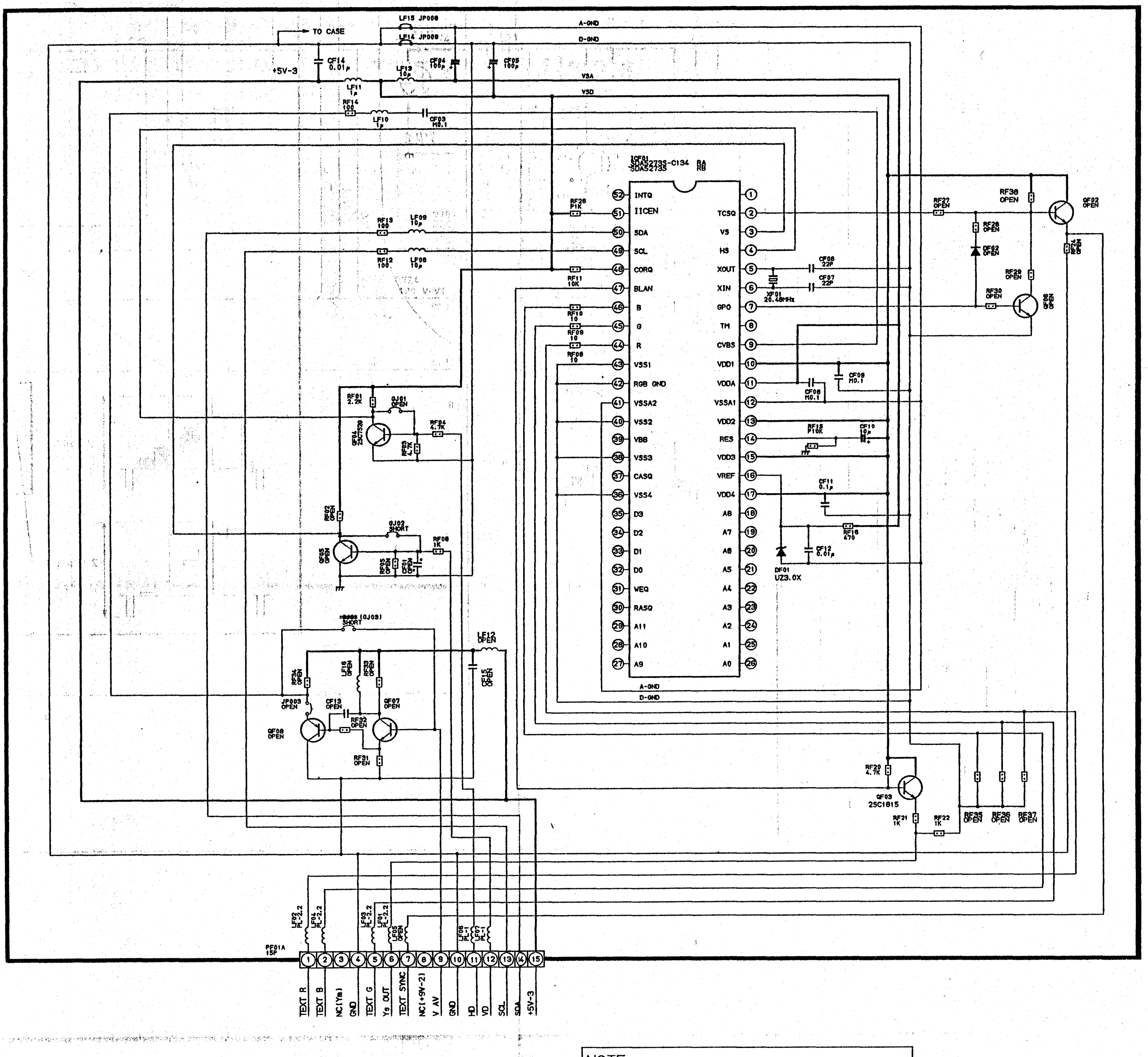
U907 TEXT BOARD
2876DD/DF PB6513X



TO CASE
A-GND
D-GND
+5V-3


CX227
0.1μ
CX221
0.1μ
CX226
0.1μ
CX224
QX301
MB40978
QX305
2SC2412K
CX301
10V100μ
CX302
25V0.1μ
RX301
150
CX312
10P
RX302
1K
LX307
QX302
2SC2412K
RX303
22
RX304
1/8W330
TX05
Y OUT
QX306
2SC2412K
CX306
10P
CX313
33P
CX307
33P
RX314
1/8W330
RX305
220
LX308
RX306
820
QX303
2SC2412K
RX307
22
U OUT
TX08
RX308
1/8W330
CX305
QX307
2SC2412K
CX308
100P
CX309
68P
CX314
10P
RX309
220
RX310
820
LX309
QX304
2SC2412K
RX311
22
V OUT
TX07
GND
TX11
RX312
1/8W330
RX315
1/8W470
CX303
10V100μ
CX304
25V0.1μ
LX303
0Ω
LX301
TEM2117T
LX302
TEM2117T
CX310
100P
LX306
TEM2117T
DIGITAL
ANALOG

# U907 TEXT BOARD
## 2876DD/DF PB6513X


TO CASE
A-GND
D-GND
+5V-3
CF14
0.01μ
LF15 JP008
LF14 JP009
LF11
LF13
VSA
VSD
RF14
LF10
ICF01
SDA5273S-C134 RA
SDA5273S RB
52 INTQ
51 IICEN
50 SDA
49 SCL
48 CORQ
47 BLAN
46 B
45 G
44 R
43 VSS1
42 RGB GND
41 VSSA2
40 VSS2
39 VBB
38 VSS3
37 CASQ
36 VSS4
35 D3
34 D2
33 D1
32 D0
31 WEQ
30 RASQ
29 A11
28 A10
27 A9
1
TCSQ 2
VS 3
HS 4
XOUT 5
XIN 6
GPO 7
TM 8
CVBS 9
VDD1 10
VDDA 11
VSSA1 12
VDD2 13
RES 14
VDD3 15
VREF 16
VDD4 17
A8 18
A7 19
A6 20
A5 21
A4 22
A3 23
A2 24
A1 25
A0 26
RF26
P1K
RF11
10K
RF10
10
RF09
10
RF08
10
XF01
20.48MHz
DF01
UZ3.0X
QF03
2SC1015
PF01A
15P
LF02
PL-2.2
LF04
PL-2.2
LF03
PL-2.2
LF01
PL-2.2
LF05
OPEN
LF06
PL-1
LF07
PL-1
1 TEXT R
2 TEXT B
3 NC(Ym)
4 GND
5 TEXT G
6 Ys OUT
7 TEXT SYNC
8 NC(+9V-2)
9 V AV
10 GND
11 HD
12 VD
13 SCL
14 SDA
15 +5V-3

NOTE
The marking [OPEN] means that there are on component on the PCB though there are the marking of part No. on the PCB.Its means open circuited.

4/4

**TOSHIBA**

# SERVICE MANUAL

# COLOUR TELEVISION

## C7SS Chassis

# 7076DD

## – SUMMARY –

7076DD is the same as 2876DD.
Use this service manual together with the original service manual 2876DD (File No. 030-9704).

PRINTED IN JAPAN Nov., 1997 Ⓢⓞ